

User Manual

Standalone DVR



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Notice before Using Product

Notice before Using Product

Please beware of the following precautions before installing the DVR.

- ① Please avoid placing the system near moisture or dust
- ② Please avoid placing the system near direct sunlight or heat source
- ③ Please place the system on a solid surface without any vibrations and away from magnetic appliances
- ④ Please place the system in a room temperature environment (Recommended room temperature of 5°C ~ 40°C)
- ⑤ Please make sure no foreign metallic/magnetic objects enter through the ventilation openings of the unit
- ⑥ Please place the system in a well-ventilated area
- ⑦ Some Radio or TV signals may interfere with system, please place the system away at least 3 feet from home electronic appliances such as Radio/Stereo/Television/Projectors
- ⑧ Never place any heavy objects on top of the unit
- ⑨ Never disassemble the product, electronic shock may result in serious injury or death



Safety Warning & Precaution

Safety Warning & Precaution

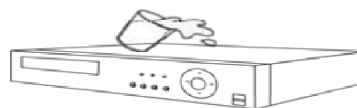
The following warnings and cautions are for your own safety and to prevent damage of the DVR system and/or other properties.



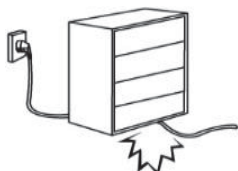
Warning (Review these warnings or you may be seriously injured or killed)



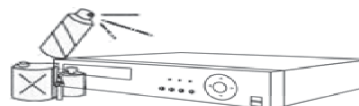
Turn off the system before installing the system. Do not plug in several electric devices to the same outlet. [This may cause heating, fire, or electric shock]



Do not place any liquid container on the system, such as water, coffee, or beverage [If liquid is poured onto the system, it can cause system breakdown or cause fire]



Prevent power cable from being severely bent or pressed by a heavy object. [This may cause fire]

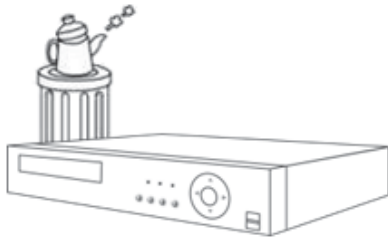


Clean the dust around the system on regular basis. When cleaning the system, always use dry cloth. [This may cause system breakdown or electric shock]



Install the system in a place with sufficient air ventilation. [Keep at least 15cm distance between the back of the system and a wall]

Content & General Warning



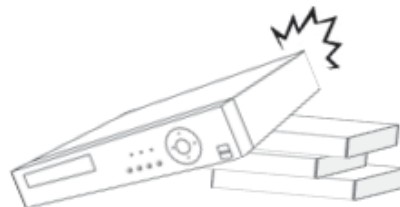
Avoid any place with moisture, dust, or soot.
[This can cause fire or electric shock]



When pulling the power cable from the plug, do so gently. Do not touch the plug with wet hands and avoid using the plug if the holes on the outlet are too loose.
[This may cause fire or electric shock]



Do not attempt to disassemble, repair, or modify the system on your own. It is extremely dangerous due to high voltage running through the system.
[This may cause fire, electric shock, or serious injuries]



Install the system on a plain surface with sufficient air ventilation. Do not place the system on elevated surface.
[This may cause system break down or serious Injuries]



Install the system in a cool place without direct sunlight and always maintain room temperature.
[This may cause fire]



Avoid using aged old power cables or long extensions.
[This may cause fire]

Content & General Warning



Caution (Review these cautions or you may be seriously injured or cause property damage)



Do not install the system in a place with high magnetic, electric wave, or wireless devices such as radio or TV [Install the system in a place without magnetic objects, electric frequencies, or vibration]



Install the system in a place with appropriate moisture and temperature level [Avoid installing the system with high (over 40 °C) or low (under 5 °C) temperature]



Prevent any substances from being inserted into the system [This may cause system breakdown]



Do not place any heavy object on the system [This may cause system breakdown]



The system can be damaged from a strong impact or vibration [The system may not operate properly]



If there is strange sound or smell, unplug the power cable immediately and contact the service center. [This may cause fire or electric shock]



Other Important Warnings & Cautions

- Users are recommended to read the relevant details carefully so as to operate the product Important properly and without harm.
- Using incorrect type of battery may result an explosion. Dispose the replaced battery under the local laws and regulations regarding the disposal of battery.
- This unit is indoor equipment and some of components and cables are limited to indoor usage.
- Please connect the unit only to the proper type of AC outlet indicated in the manual or product specification. If connected to other types of power outlet, system will be damaged may resulting in a fire or electric shock.
- Connect the power cord to other external devices only when the products themselves are disconnected from their own power supply.
- Do not bend, twist, pull, apply pressure or heat the power cord. Damage to the power cord may lead to fire and electric shock.
- Do not remove the top casing of the product. Doing so may result in electric shock. The system must be covered with its original case in any time.
- Do not modify the product in any way. Doing so may lead to fire and electric shock and will void the warranty.
- Please use only the power cord supplied with the product. Use of 3rd party power cords may result in fire and electric shock.
- Do not leave the power cord or other cables in passageways. Passers-by may trip and fall resulting in an injury.
- In case of lightning, it is important that the power cord from the power outlet be immediately turn off. The product may otherwise be damaged. Non-compliance may result in damaging the system, serious injury or even death if not properly used.

Content & General Warning

- Excessive current from the product and the camera may result in an electric shock and or damaging the system.
- Do not operate or store the product in the following places.
 - An area that is either too cold or too hot. See Specification.
 - An area of high humidity, or in front of an air-conditioner, or in places subject to sudden temperature changes.
 - An area where there is excessive dust.
 - Areas where heat from the product cannot be emitted the product's ventilation openings, including fan-less unit.
- Any objects with magnetic properties near the product.
- Static electricity may cause damage to the internal parts of the product. Please remove static electricity from your body before handling the rear panel and internal electronic parts of the product.
- If this product is damaged beyond repair or reaches its maximum service life, dispose of it in compliance with local laws and regulations regarding the disposal of corresponding electronics devices.
- The product may not work properly if the power source is unstable or and if electric shock occurs. Make sure the correct system is running under correct and stable power rate.
- The product is designed to be proof against electric power failures; however, damage may occur as a result of power failure. Stored or current data may be damaged or data might not be recorded and not recoverable. Using Uninterruptible Power Supply (UPS) is recommended.
- Since the product is designed to record video data on the hard disk, an error in the hard disk or other miscellaneous errors might prevent the product from functioning properly in recording, searching, backup, and miscellaneous. Hard Disk is a separate

entity thus periodic maintenance is required for proper operation of the product & its life cycle.

- The product is designed for users to configure their own interface. However a user configuration error could lead to system malfunction. This product should be set up and custom configured only by certified installers only.
- Since the product is connected with tightly coupled complicated exterior wiring or cabling from many peripherals like a camera, sensor, Ethernet, HDD, and many others, there may be a risk of malfunction from external causes. Ensure periodic maintenance by the certified installers.

Notification: Any Damages caused by users neglecting above warnings & cautions, and or damages done by force of nature, and or by physical forces will not be covered by any warranty programs including the manufacturer.



1. Product Description

1. Product Description

Product Overview

"Standalone DVRs" are Standalone DVRs that support H/W compression, Real-time Display, and Two-way Audio function. Their stability was maximized by adopting Embedded Linux as the Operating System. By supporting strong Remote Surveillance and Remote Playback through network, they can be the optimized security solutions for IP Surveillance Generation.



Product Specification

Specification		SSA-0412HL	SSA-0824HL	SSA-1648HL
Video Input		4	8	16
CODEC	Video	H.264		
	Audio	ADPCM		
Video Output		[BNC x 1, RCA x 1] CVBS, [BNC] SPOT x 1, VGA x 1		
Video Signal		NTSC/ PAL		
Operating System		Embedded Linux		
Pentaplex Function		Live Display, Recording, Playback, Backup & Remote access		
Interface Control		Unit's Frontal Buttons, Remote Controller, Mouse		
Audio In(RCA)		4		
Audio Out		1 Port RCA, LINE Level (Functional Live Audio)		
Sensor Input (Type - NC/NO)		4		
Alarm Output (Type - NC/NO)		1		
Storage	ODD	CD-RW, DVD-RW(SATA) x 1ea (Optional)		
	Max HDD	SATA x2ea (w/o ODD)	SATA x2ea (w/o ODD)	SATA x2ea (w/o ODD)
Video Recording (NTSC/PAL)	CIF	120/100	240/200	480/400
	2CIF	120/100	240/200	240/200
	D1	120/100	120/100	120/100
Motion Detection		Can be selected / 1 Channel has selection of 44x30 blocks with H/W based motion detection		
Recording Modes		Manual, Motion Detection, Schedule, Sensor		
Function		Watermark, Pre-recording, Dual Streaming, 2-Way Audio		

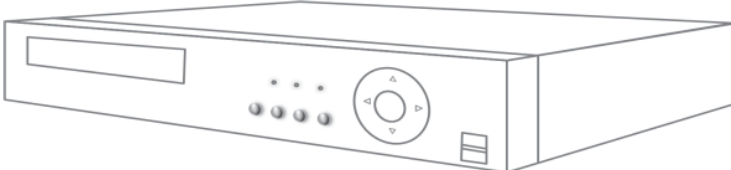
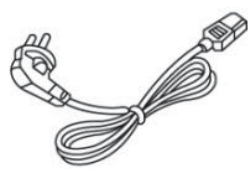
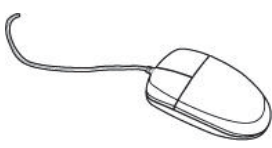
** Specification of hardware & software are subject to be changed without any notifications when necessary.

Product Description

Front LED	Record, Alarm, Network
Backup Media	DVD-RW, USB Memory Stick
Firmware Upgrade	DVD-RW, USB Memory Stick, Network**
Search Modes	Calendar, Event, Quick, Time
Watch Dog	Hardware Watchdog Support
PTZ Connection	1 Port Terminal Block, RS-485
PTZ Protocol	Pelco-D, Samsung SCC-641 and approx. 90 protocols support
Network	1 Port Ethernet 10/100 Base-T
Network Protocol	TCP/IP, HTTP, FTP, DHCP, PPPoE, SMTP
DDNS	www.ddnsservice.com/ www.dyndns.com
DVR Recovery Mode	System Auto Restart, Network Auto Reconnect
CMS** (Optional)	Max. 64CH CMS
Communication Port	RS232, RS485, Ethernet, 2USB(Mouse/ Backup)
Storage Temp.	20 ~ 60℃ / 20~95% RH
Operation Temp.	5 ~ 40℃ / 20~80% RH
Power	110-220V / 60-50Hz
Dimension	360mm(W) x 236mm(D) x 60mm(H)
Weight	2Kg (w/o storage)
Remote Software**	DVRPlatform, Web Client, Mobile Viewer , & Mobile Apps
EMC Certificate	CE, FCC, KCC, V, RoHS

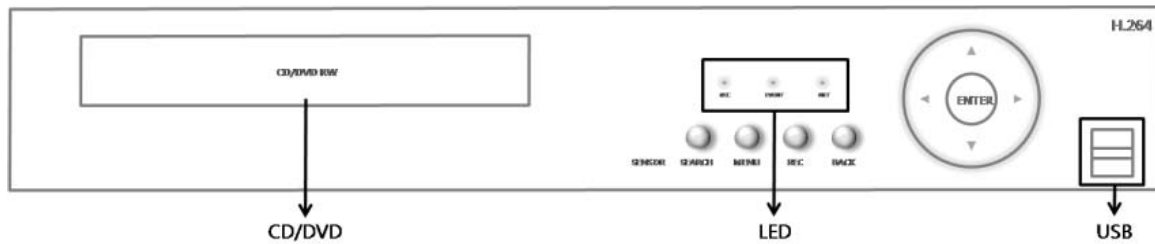
** Specification of hardware & software are subject to be changed without any notifications when necessary.

Package Contents

	DVR System
	Adapter
	Remote Control Unit
	S/W Installation CD
	Power Cable (Option)
	User Manual (Option)
	Batteries (AAA) (Option)
	Mouse (Option)

Product Description

Front Panel Layout



LED Status Lights

REC	LED on when recording
EVENT	LED on when events occur
NET	LED on when network is connected

USB Port

USB Storage can be connected for backup and F/W upgrade purposes.

CD/DVD-RW (Optional Type)

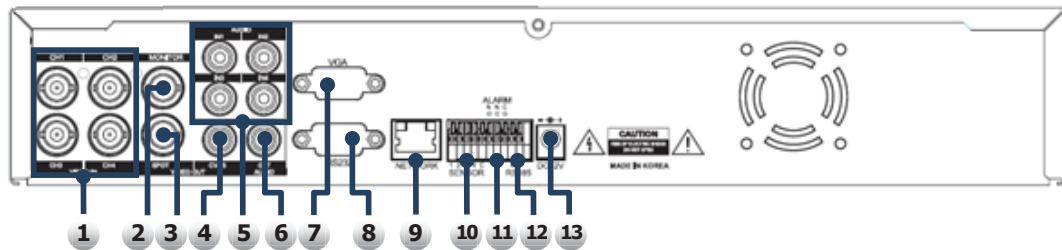
Blank DVD/CD (depending on the optical drive type) can be inserted to back up data or to upgrade the firmware.

Front Panel Buttons

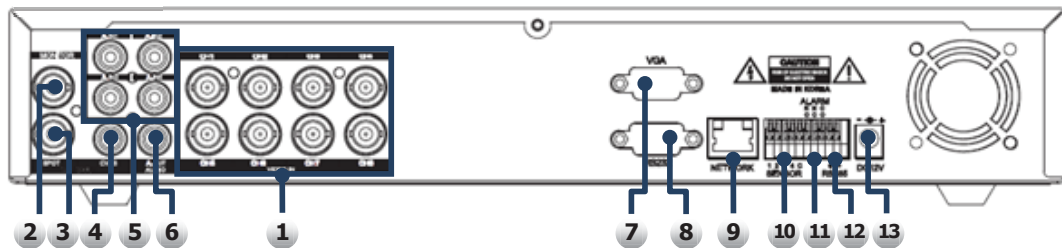
SEARCH	Launch the search function
MENU	Launch the system menu
REC	Start Recording
Back	Back from the current action
▲(Up)	Move up within split video channels or menu items
▼(Down)	Move down within split video channels or menu items
◀(Left)	Move left within split video channels or menu items
▶(Right)	Move right within split video channels or menu items
Enter	Select a channel or a menu item

Rear Panel

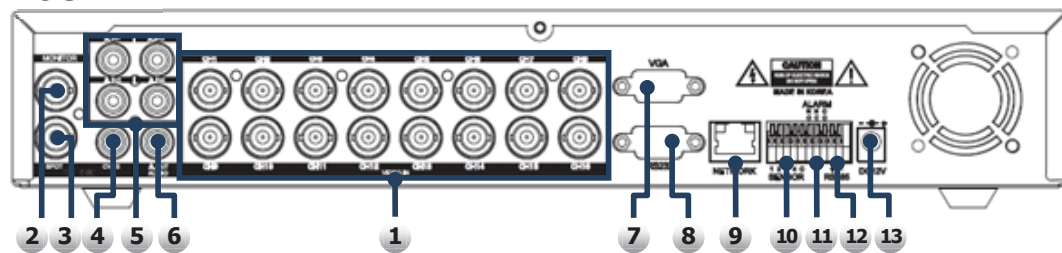
4CH



8CH



16CH



①	Video In	[BNC]Camera Input
②	CVBS Out	[BNC]Main Composite Video Out
③	SPOT Out	[BNC]SPOT Out
④	CVBS Out	[RCA]Main Composite Video Out
⑤	Audio In	[RCA]LINE(MIC) Audio In
⑥	Audio Out	[RCA]Audio Out
⑦	VGA Out	VGA Output
⑧	RS-232	RS-232 Serial COM Port
⑨	Network Port	[RJ-45]Ethernet Port
⑩	Sensor In	Sensor Connection (None Powered Type)
⑪	Alarm Out	Alarm Connection (None Powered Type)
⑫	RS-485	RS485 for PTZ Control
⑬	Power In	Adapter Power (DC12V)

Product Description

Remote Control Unit Layout

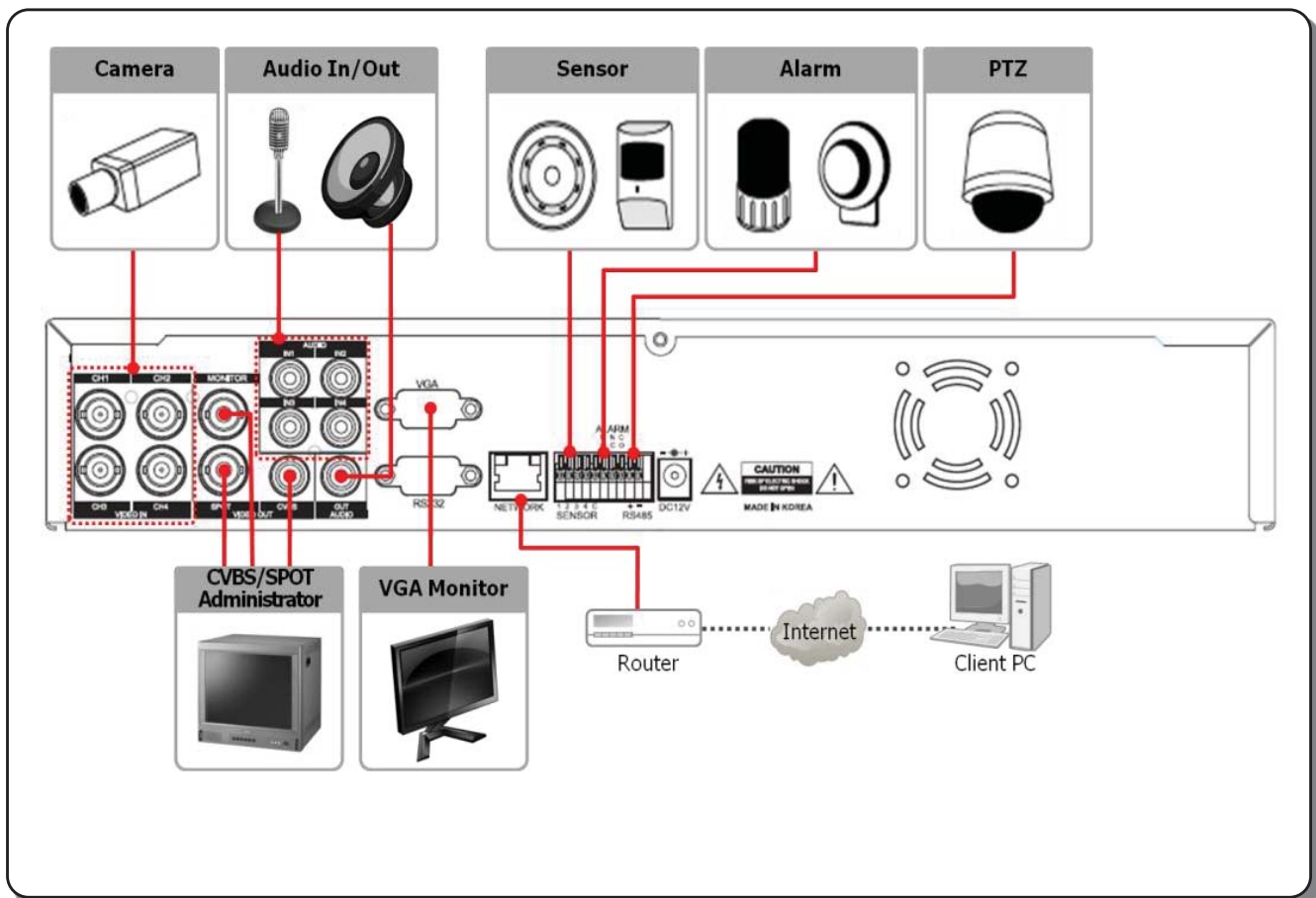
	POWER	Power ON/OFF
	FREEZE	Pauses live view screen for quick scan/review of event
	REC	Start Recording
	MENU	Launches the menu
	BACK	Back from the current action
		Navigate through menus. Select the item.
	SEARCH	Launches the search
	STOP	Stop playback
	PTZ	Launches the PTZ setup
	REW	Rewind playback
	PLAY/PAUSE	Play/Pause playback
	FF	Fast forward playback



2. Product installation

2. Product installation

Connection Outline (4CH case)



Video Connection

Input

This series of DVR systems have a total of 16 camera inputs for recording. Either NTSC or PAL video signal cameras may be used in this system and will be set in the system configuration menu. Please do not mix different video signal types into 16 channels. All 16 must either be NTSC or PAL. (※ Max Video Input number varies by each products.)

Output

- ① CVBS: Composite video signal will be sent through the BNC port for video output. Standard CCTV monitor may be used for video output connection.
- ② VGA: Composite video signal will be sent through the VGA port for video output. Standard 15 PIN VGA monitor may be used for video output connection.
- ③ SPOT: All cameras will be sent full screen to the port with sequence mode. Uses BNC video connection.

Audio Connection

Input

- ① LINE (MIC) Input: This DVR supports up to 4 audio inputs. Please refer to the back panel of the DVR for input locations.
- ② Default audio input signal level is Line-In. An additional device should be installed to use MIC-In level of audio input.

Output

This DVR has 1 output for audio out. Either TV's internal audio input can be connected directly to DVR's audio output or an externally powered speaker can be connected to the audio output for sound.

Alarm/Sensor/PTZ Connection

Alarm

This product does not supply power to an alarm internally. The alarm type that should be used is Dry Contact Type. Up to 1 alarm can be connected.

- ① Use two wires for connection.
- ② Depending on type of Alarm used, please choose the right type from DVR's Alarm Menu.

Info	NO	Normal Open
	NC	Normal Close

Sensor

This product only supports sensors that act as simple mechanical switches (dry-contact type sensors.) Up to 4 sensors can be connected.

- ① Of the two wires from the sensor equipment, connect one of the wires to the C (Common) terminal in the terminal block. Then connect the other wire to the terminal of the corresponding channel (1~4).
- ② Access the DVR Menu and setup each sensor to either NO / NC.

PTZ

- ① Using RS485 Connection, PTZ cameras should be connected using D+ and D- port in the rear of the system. PTZ control signal can be daisy chained for multiple PTZ devices
- ② Before using the PTZ, an appropriate PTZ protocol must be selected in the PTZ menu.

Network Connection

DVR has an Ethernet port in the rear for standard RJ45 cable connection.

Hard Disk Drive

DVR System supports only SATA (Serial ATA) connection. Hard drives must be SATA and up to 2 hard drives may be connected.

- ① Turn off the power after system shutdown
- ② Open the top casing cover.
- ③ Please make sure the hard drive is properly seated in the hard drive rail
- ④ Install SATA cable/power cable properly to the hard drive. Please double check the connections.
- ⑤ Close the top casing cover.



Attention!

At least one HDD must be installed for DVR's normal operation.

Power Connection

DVR system requires a 110-220V/ 50~60Hz power input. Please be sure to connect right power to the rear power port.

System Installation Complete

You have successfully installed the DVR system.



3. Standalone DVR Set Manual

Keyword Glossary for this chapter

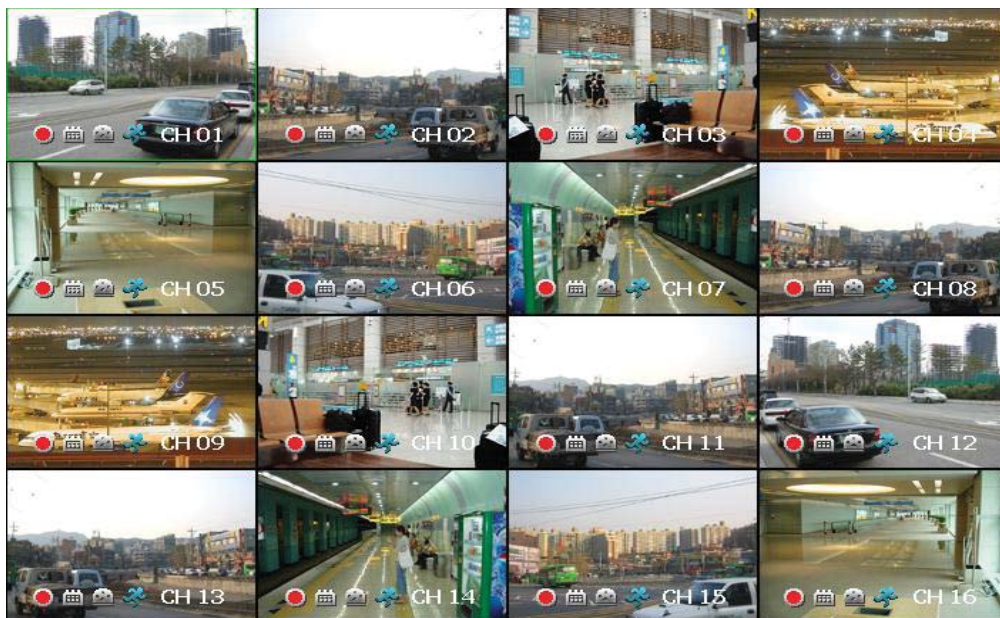
Words	Pages
Alarm	25, 52, 53
Backup	70
Camera Menu	68
Date & Time	36, 64
DDNS	60, 61
Default Factory Reset	58, 66, 69
Email	66
ID & Password	41, 66
Live Screen	27,28
Network	25, 60
OSD	56,57
Playback	39
PTZ Menu	24, 36, 55
Recording	38,49,51
Search	39,43~48
System Information	69
System Menu	41, 56
User Management	66, 68

Starting the System

Please make sure the power cord in the rear is firmly connected.
Press the power button in front of unit for initial start. At initial power-up, the system will start automatically when the power cord is connected. Main screen should come up with connected video screens.

Live Mode

Main Screen



[Screen 3-1] Main Screen (16CH Case)
(Live screen may look differ from model to model)

Video Screen

[Screen 3-1] A single screen will appear upon startup, which will include all the video input into one single video output.

[Screen 3-2] Each camera channel will show a status caption above the actual video image. This makes viewing of each camera status very easily accessible.

The status panel is the below as [Screen 3-2],



Status icon is explained in the following:

- ①  Recording is in progress
- ②  Scheduled recording mode is active
- ③  Sensor input has been triggered
- ④  Motion detection has been triggered
- ⑤ CH-01: Channel name / Camera name

Each channel is selectable from the split screen view for more detailed picture and controls.

- ① Watching a single channel with full screen mode.
- ② Controlling PTZ
- ③ Enlarging surveillance video with the digital zooming function

Control Panel

At the bottom of main screen, a convenient DVR control panel is located. The DVR buttons and control is grouped into 3 types of controls, depending on the current mode, the grouping will come in handy.

The following is quick overview. The control panel provides 3 functions by each category.

Locations	Description
Left	Split screen modes
Center	A collection of general functions on DVR
Right	Main features shortcut menu buttons

General Display



<Split screen mode> <Current time> <DVR function shortcut>

As shown above, the default control panel features split screen buttons, displays the current time, and DVR function shortcuts.

Split Screen Modes: Left Control Panel

Full Screen View



[Screen 3-3] Full Screen View

View a channel in full screen, by double clicking on a channel

[Screen 3-3]. Alternatively, click on  button to full-size a selected channel.

Double clicking on the screen while in full screen mode will turn back to previous split screen mode

Clicking  button once more will switch to the next available channel.

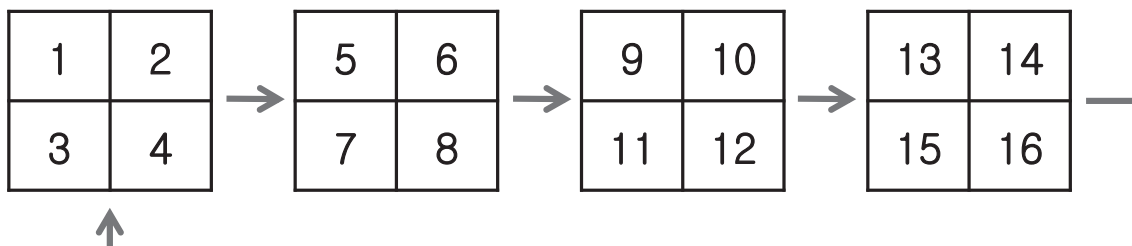
4 Split Screen View



[Screen 3-4] 4 Split Screen View

To view the DVR in 4 channel division, click  button. [Screen 3-4]

In addition, by clicking  button once more, the next 4 set of channels will be shown and so on.



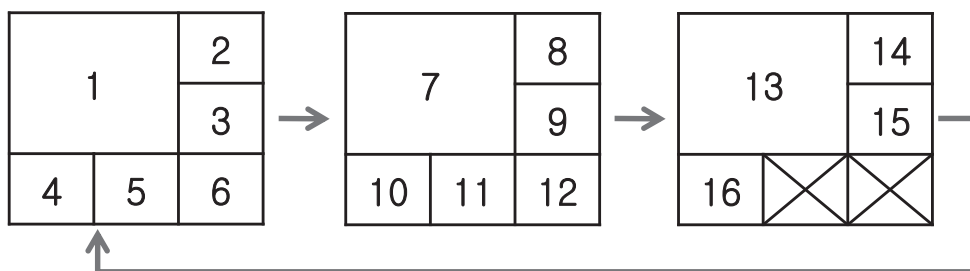
6 Split Screen View



[Screen 3-5] 6 Split Screen View

To view the DVR in 6 channel division, click  button. [Screen 3-5]

In addition, by clicking  button once more, the next 6 set of channels will be shown and so on.



In the above diagram, the 'X' indicates channels which will not be shown.

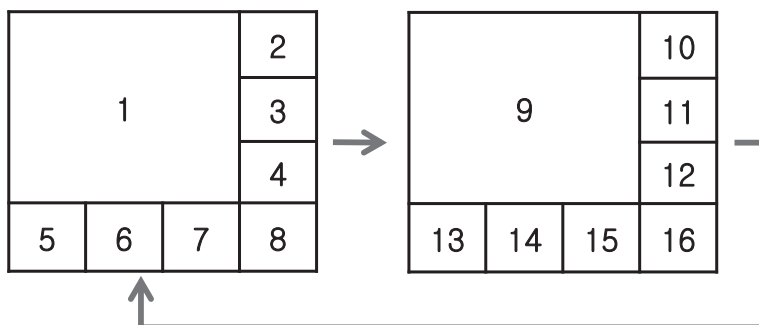
8 Split Screen View



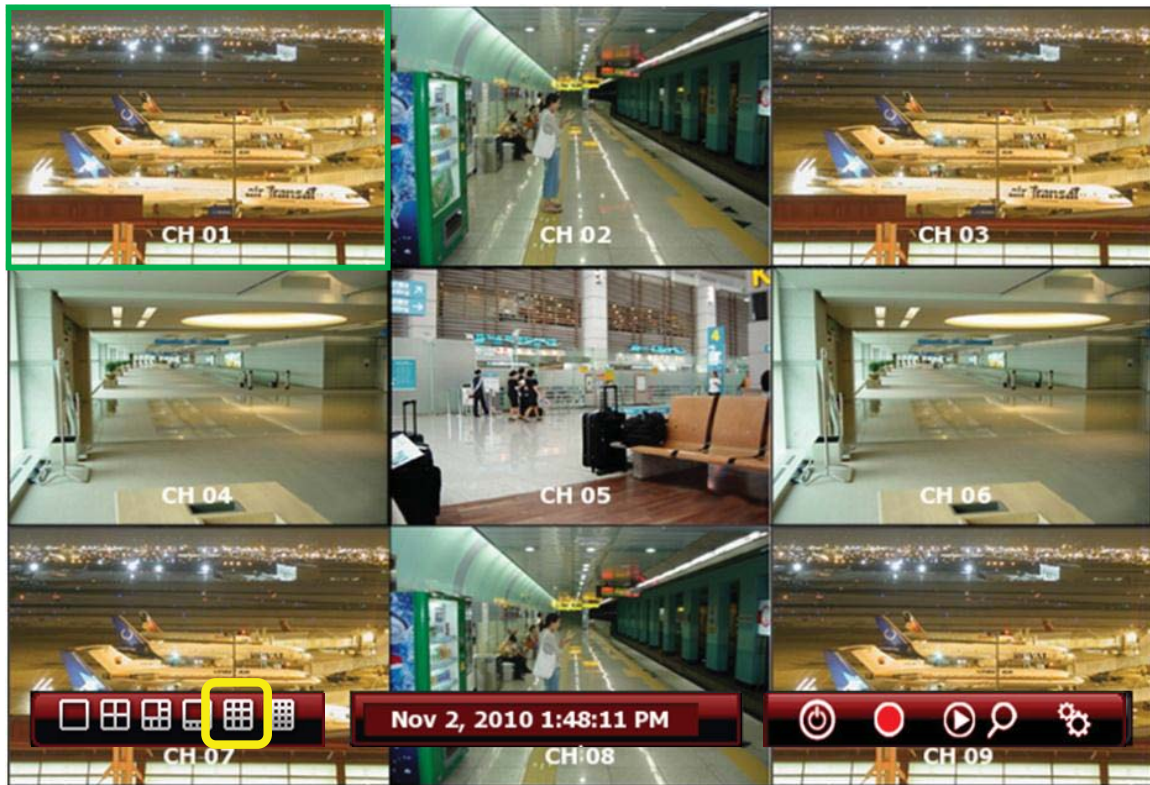
[Screen 3-6] 8 Split Screen View

To view the DVR in 8 channel division, click  button. [Screen 2-4-4]

In addition, by clicking  button once more, the next 8 set of channels will be shown and so on.



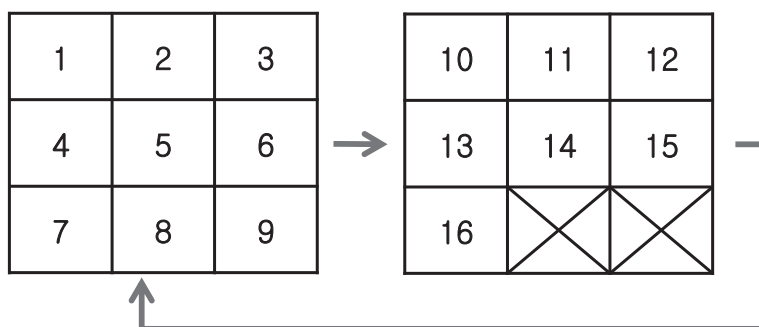
9 Split Screen View



[Screen 3-7] 9 Split Screen View

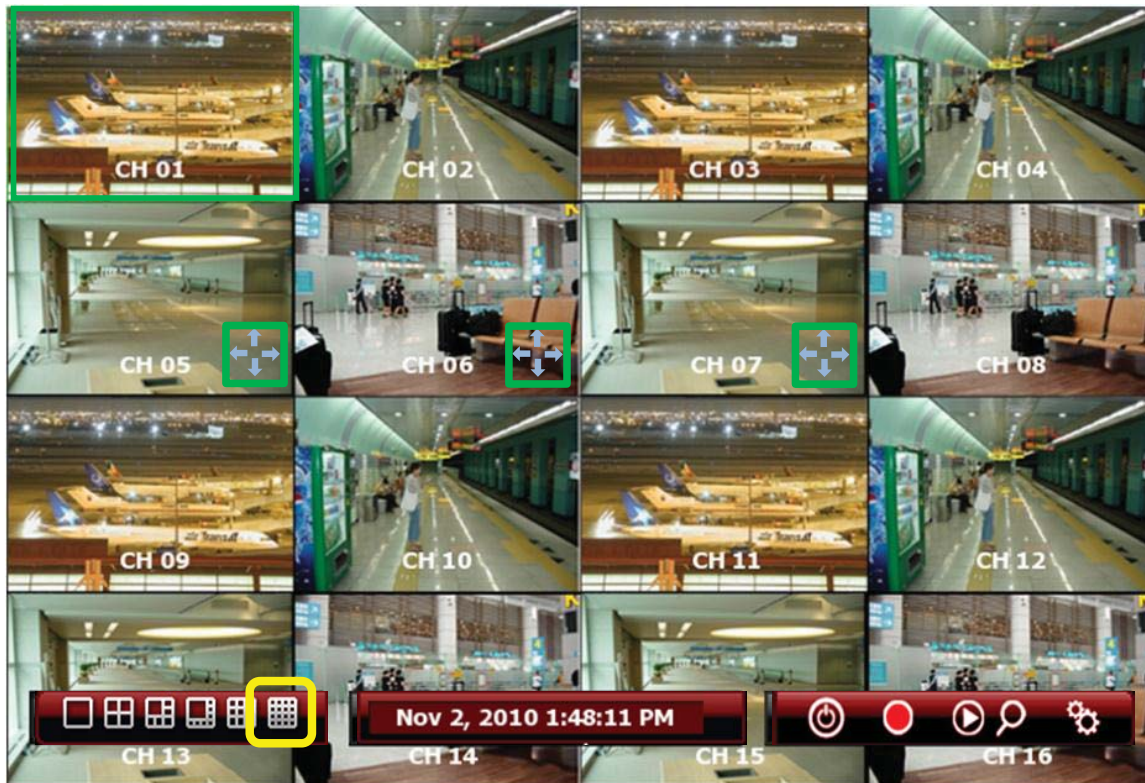
To view the DVR in 9 channel division, click  button. [Screen 2-4-5]

In addition, by clicking on  button once more, the next 9 set of channels will be shown and so on.



In the above diagram, the 'X' indicates channels which will not be shown.

16 Split Screen View



[Screen 3-8] 16 Split Screen View

To view the DVR in 16 channel division, click  button.

Menu Bar Panel: Current Time, HDD Usage and PTZ

Date and Time

Displays Current Date & Time of live image.



Displays HDD Usage Display when  click on <Current Menu>.

Displays current usage of HDD storage in percentage (%).



Basic PTZ Control



Click on “” button to change the center side of panel to the PTZ control panel. This control panel provides PTZ control function to a video channel at which PTZ configuration is set.

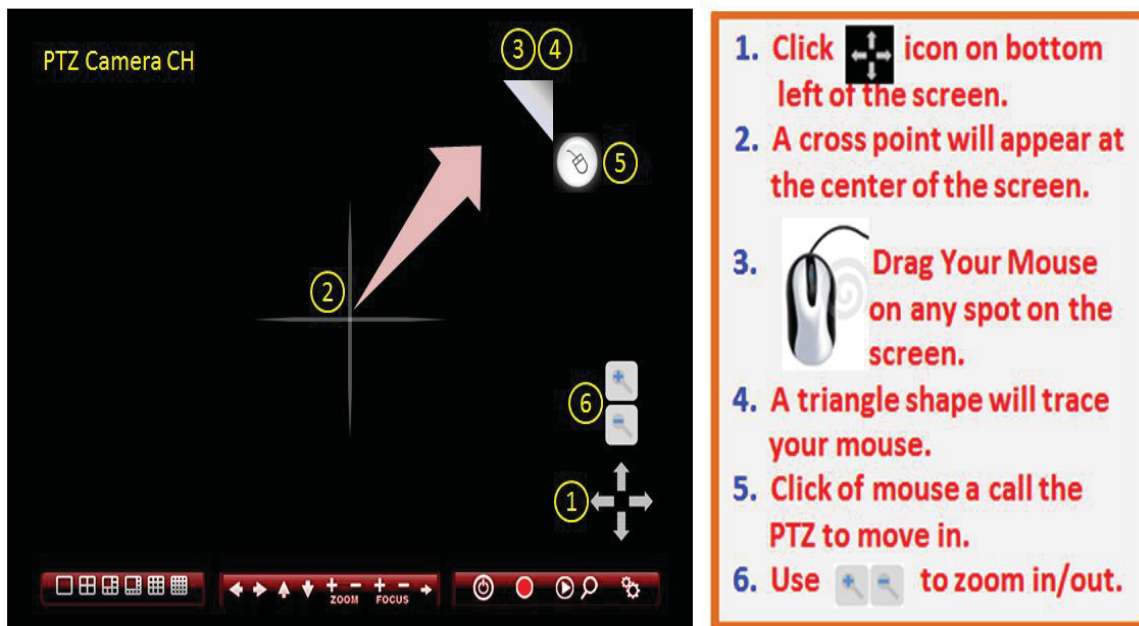
Advanced PTZ Control

Once the PTZ is enabled & configured to from “PTZ Setting Menu”,



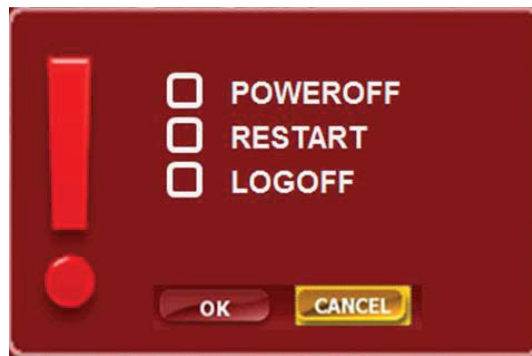
user can activate “Active PTZ Control” from multi-channel view, by clicking  icon shown on any PTZ enabled “Channel” (Ex: Ch5, 6, or 7).

Below is showing the initiated Screen Control.



[Screen 3-9] <Active Screen PTZ Control>

Power Off / Restart / Log Off



[Screen 3-10]

Click on  "POWER" button.

Select option.

Press "OK" to proceed or "Cancel" to exit back to main window.

Emergency Recording / Manual Recording



When user presses the  button, Emergency Manual Recording mode will be turned on and will overwrites on all other recording schedules unless Emergency manual recording is de-activated by user.

Instant Video Playback



When user presses the  button, right menu panel will be switched on to <Playback Command> as shown below.



<Playback Command>

When in playback mode, the screen will indicate new tools at the bottom right side the panel.

The control panel provides playback controlling functions for speed and direction of all channels.

Playback Mode

DVR is able to playback any recorded data with many different function modes of playback. In this section, each playback mode and search function is documented for usage.



[Screen 3-11] Playback Screen

Initial playback screen will show [Screen 3-9] with status bars at the bottom of the screen. Each bar and function is detailed as follows:

Split Screen Modes



Left bottom side of the status bar will have screen split controls

※ Refer to the 'Split Screen Modes' section for operation

Playback Date and Time



It shows the current date and time of the video that is being played back. The speed of playback time will vary depending on the speed of playback.

Playback Controls

Controls for playback are located at the bottom right of the status bar. Fast forwarding and fast rewind is up to 64 times the normal playback.

- ① Reverse Playback.
- ② Stop
- ③ Pause
- ④ Play
- ⑤ Fast Forward.
- ① & ⑤ Press repeatedly to change speed

QUICK SEARCH



 Quick Search. This button will call the last recorded video playback available.

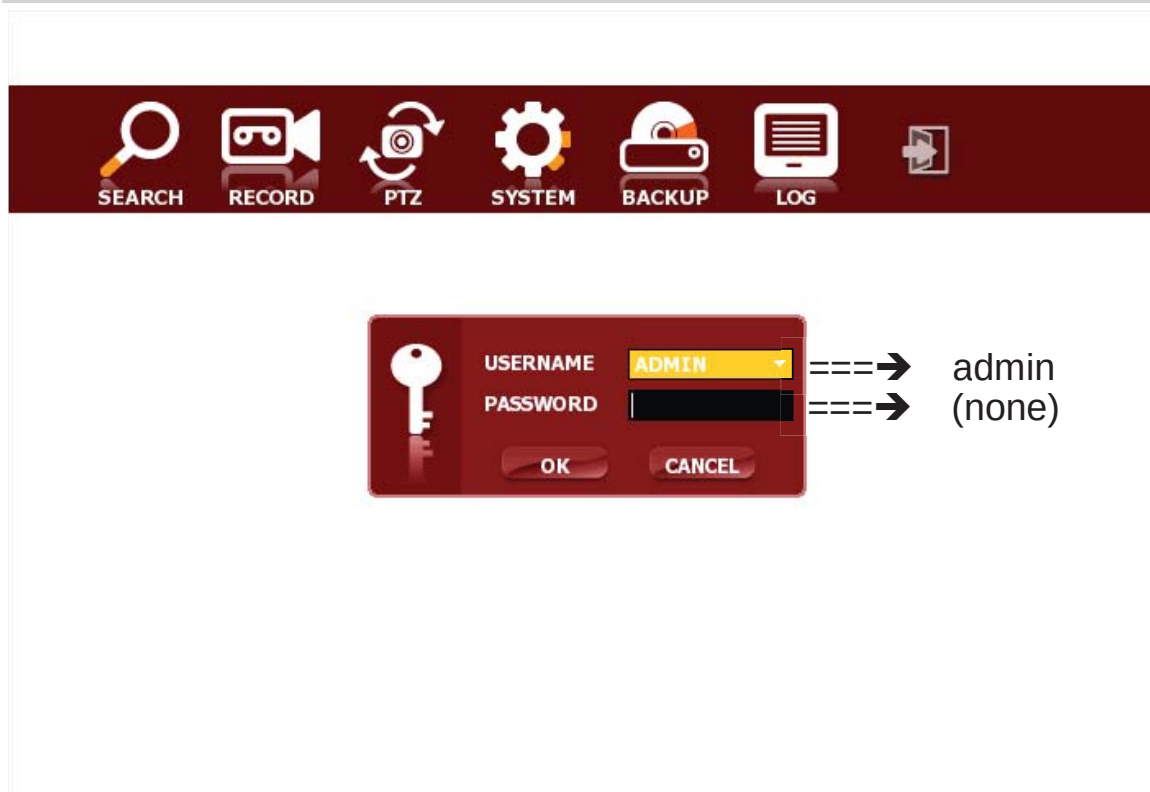
Refer Page 233 for more detail "Search" instruction.

DVR System Menu

[Screen 3-12] DVR System Menu

On the surveillance screen click the  (Setup) button to access the menu mode.

Initial Menu & Log In



[Screen 3-13] Initial Menu

Initial Menu screen will open when  button is clicked.
Enter ID and Password when prompted.

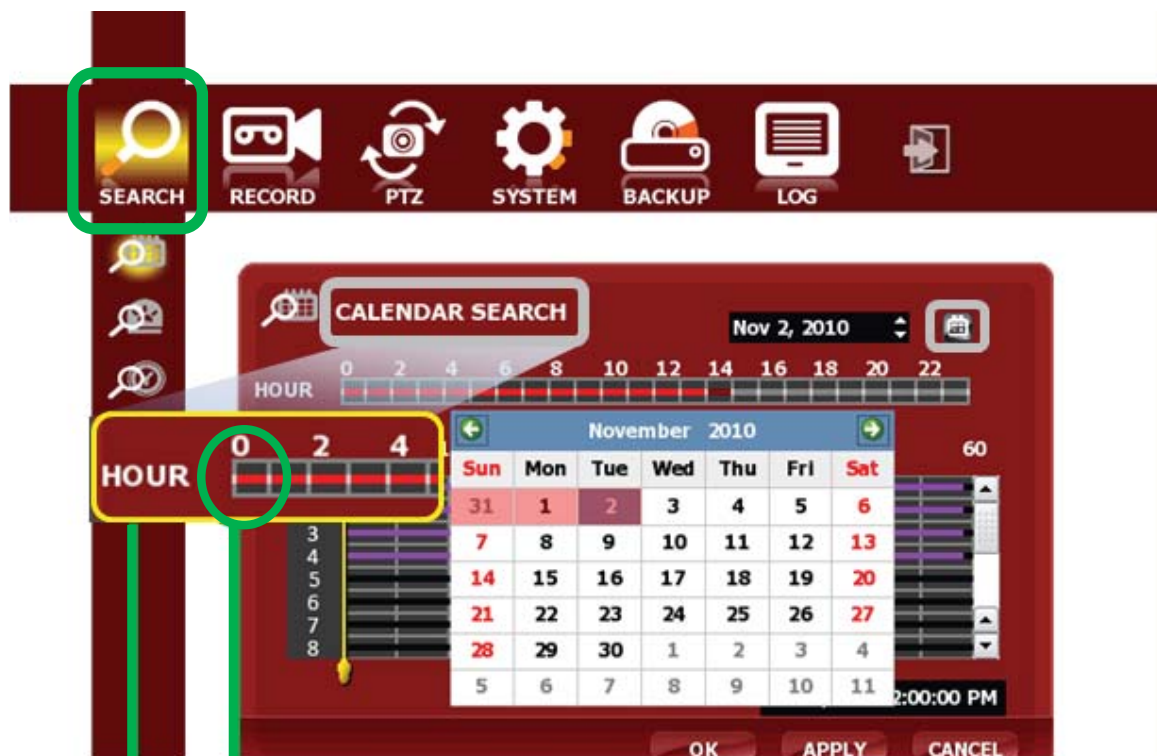
Default System ID and Password

ID:	admin	
Password:	(none)	Leave it blank.

Search Menu

Search & Quick Search

User can access different types of Search Menu from DVR System Menu or using Quick Search  from Live Display Menu.



[Screen 3-14] Calendar Search Window

Click to select hour
Recorded data

Click  button to run Calendar Search [Screen 3-14]

A calendar will open. Dates with available data will be highlighted in red box [Screen 3-14]. Click on the date.

- ※ HOUR indicates from 0 hour to 23 hour. Searchable data will be indicated in red.
- ※ Time bar indicator will open. Hours with available data will be indicated by red bars. Click on the time bar to select an hour.



Selection

[Screen 3-15] Time bar Indicator (Minute)

In the time bar indicator for minutes, minutes with available data will be indicated by colored bars. MIN indicates from 0 minute to 59 minutes. Searchable data will be indicated in color.

Select the hour and minute, and click **OK** button to start playback.

Select a minute, and click **OK** button to start playback.



Calendar Search – DST(Daylight Saving Time)

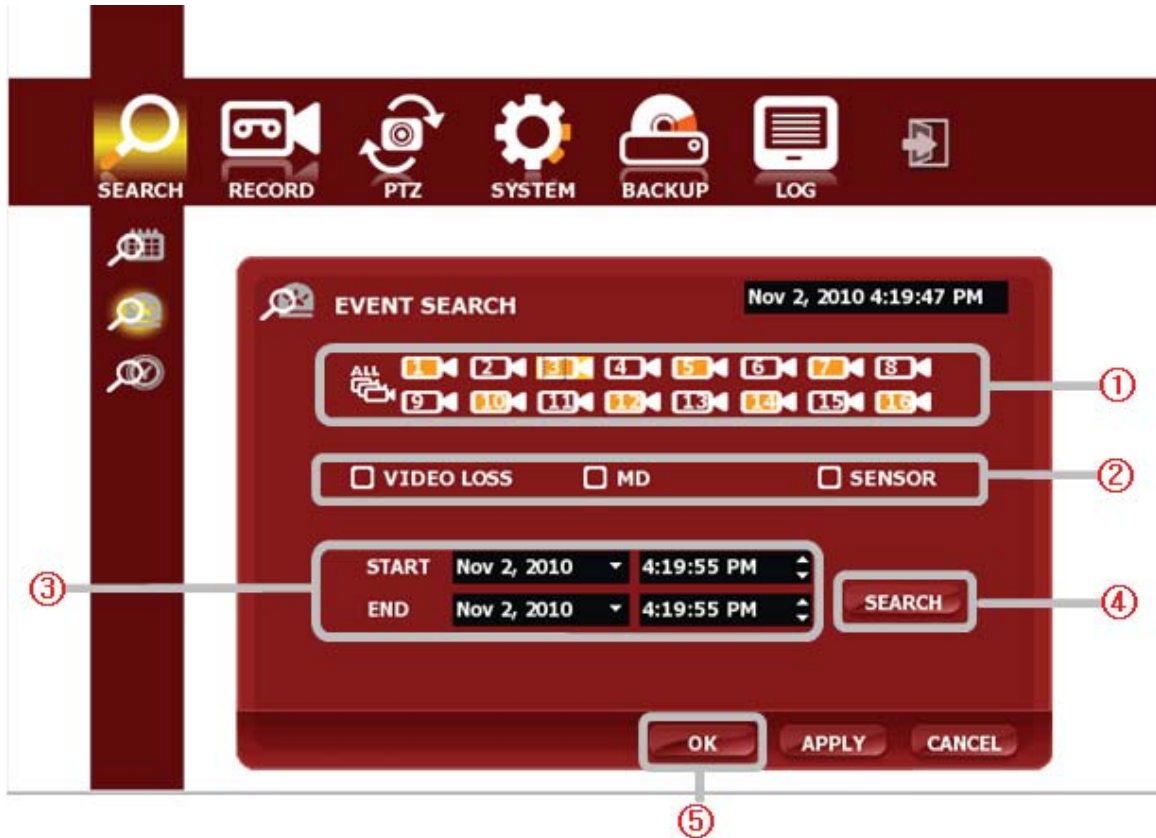


[Screen 3-16] DST (Daylight Saving Time)

- ① DST(Daylight Saving Time)
 - In countries that use daylight savings time, the last day of daylight savings time will be recorded as a 25 hour day.
 - On the last day of daylight savings time, the recorded data at the end of the day – which contains the extra 1 hour of data - will be marked in blue
 - The data marked in blue – which contains 2 hours of data - can be searched by either choosing 1 hour right before or 1 hour right after daylight savings time ends.
 - Click on the blue time. A dialog box for selecting the search
- ② DST Popup
 - Click on the blue time. A dialog box for selecting the search time will open.
 - Use the dialog box to search the hour right before and after the end of daylight savings time
 - Dialog box for selecting the search time will open.
- ③ DST time configuration will be applied automatically when selecting special time zone.

Event Search

On the left side of search screen [Screen 13-17], click on  button to start the event search. Event search [Screen 4-6] will be shown.



[Screen 3-17] Event Search

A database of all the events occurred is kept along with the date and time. Easily search for video footage from specific events.

Using the Event Search (How To)

- ① Select the channel to search.
- ② Select type of event: VIDEO LOSS, MOTION DETECT, and SENSOR.
- ③ Select Start and End Date/Time for which days/hours to search.
- ④ Click  button to start searching for events.

Search results will be shown in [Screen 3-18]

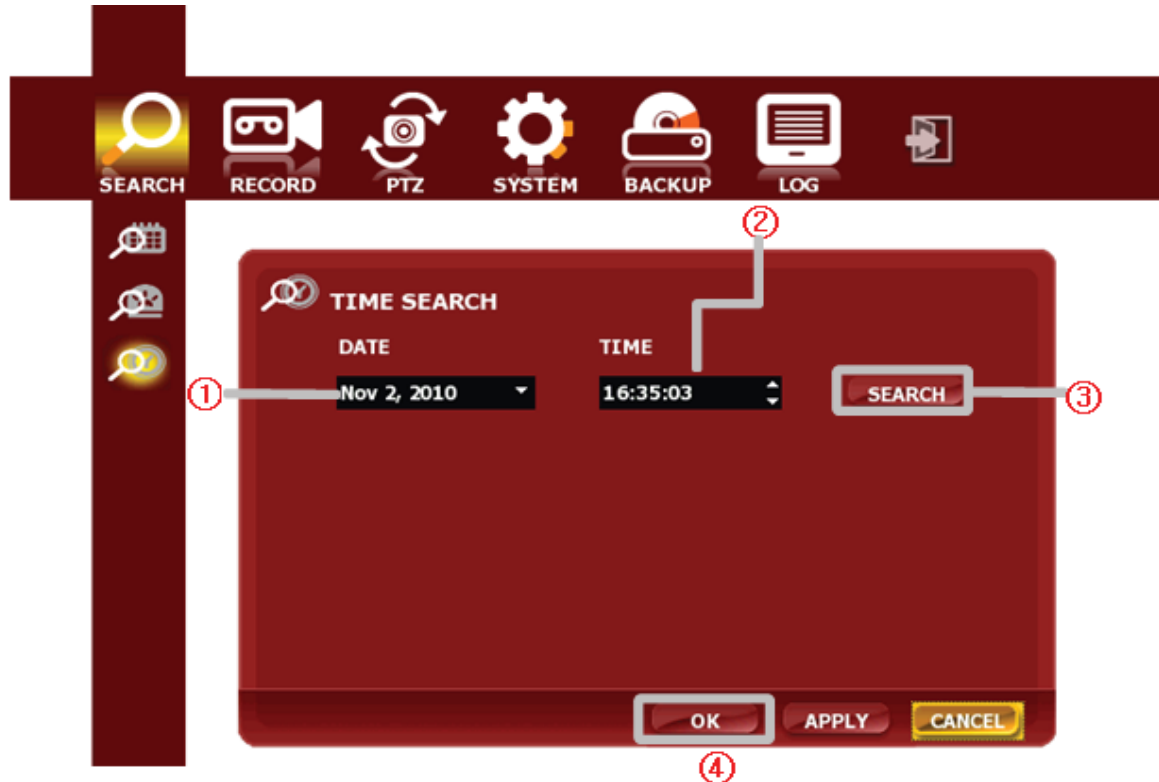
- ⑤ Choose an event from the result and click **OK** button, the display mode will be changed to playback mode, and then playback will be started from the time that the selected event was stamped.
- ※ Please go back to “Playback Mode” page for reference on how to use the playback mode



[Screen 3-18] Event Search Results

Specific Time Search

[Screen 3-19] On the left side of search screen, click on  button to start the time search. Time search [Screen 3-15] will be shown.



[Screen 3-19] Time Search

Use time search to jump right to a specific time to watch recorded video.

Using Time Search (How To)

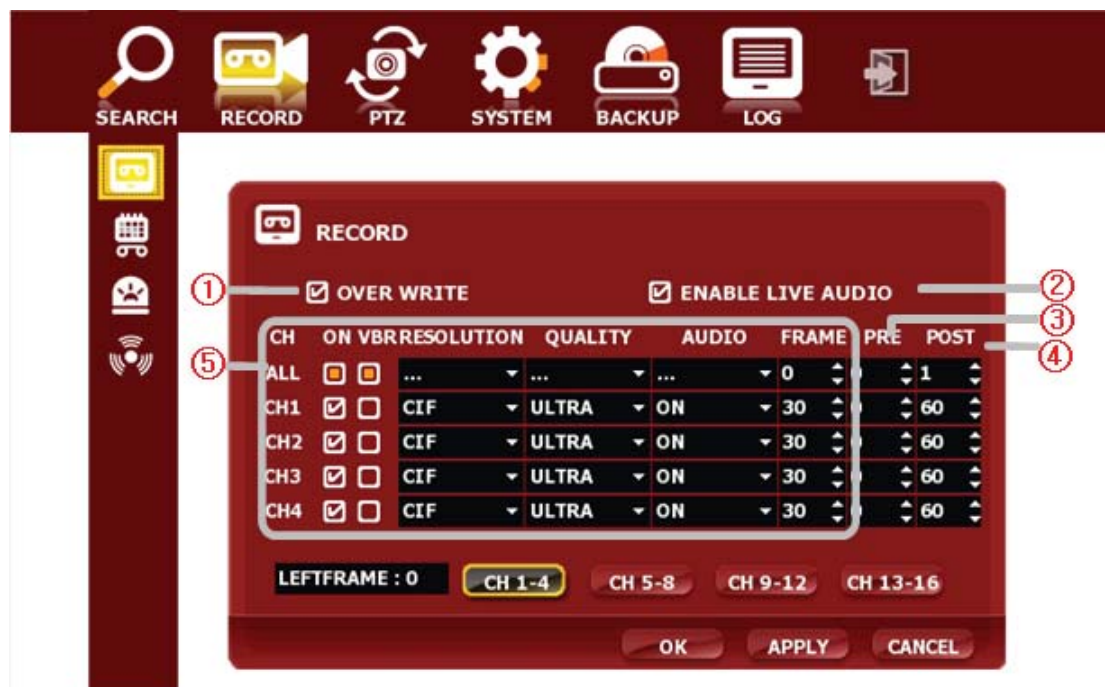
- ① Input the date into DATE field
- ② Input the time into TIME field: Hour, Minute, Second
- ③ Click  or  button, the display mode will be changed to playback mode and it will start playing from the selected time.
- ④
 - ※ Please go back to “Playback Mode” page for reference on how to use the playback mode

Recording Configuration

User can set the DVR to record video with specified perimeters. The DVR will start recording in the following cases:

- ① When user presses the  button in the system front panel for manual emergency recording.
- ② When user clicks on  button from the control panel in the surveillance screen for manual emergency recording.
- ③ If schedule is set up to record at certain times of the day.
- ④ When motion detection mode is enabled. Recording will start when any change is detected in channel pixel frames
- ⑤ When a sensor is triggered.
- ⑥ When a 'Video Loss' is triggered (The other channels will start recording).

The user can use this menu to configure the DVR to start recording in different types of situations



[Screen 3-20] Record Configuration

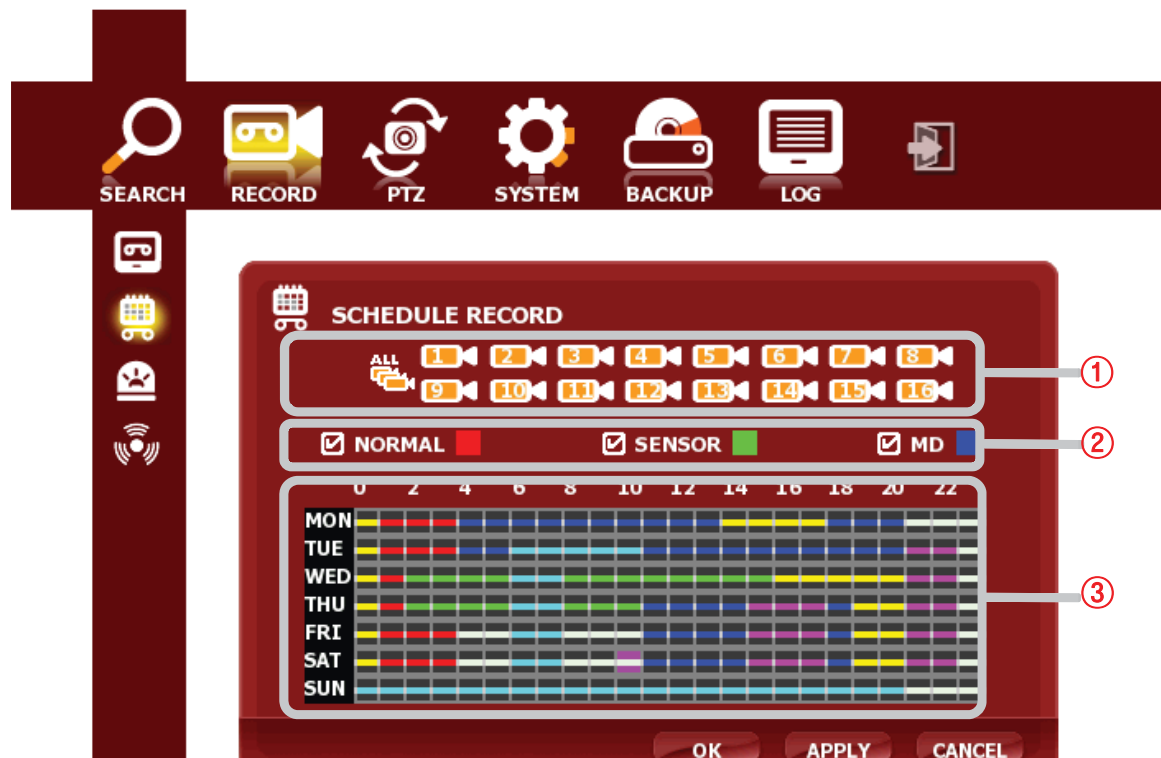
Configure the recording options as follows:

- ① **OVERWRITE:** Enable overwrite to allow new data to be overwritten over the oldest data when storage space is full.
- ② **ENABLE LIVE AUDIO:** Enable to output recording audio.
- ③ **PRE:** Pre-recording configuration to record before an event has been occurred.
- ④ **POST:** Post-recording configuration to record after an event has been occurred.

Recording Quality configuration table is as follows,

ALL	When selected, same settings will be applied to all channels
CH	Channel specific setting
ON	Select to turn on/off recording of a channel
VBR	Recording size varies by motion with this setting. More motion takes more disk space to record.
SIZE	Adjust video resolution
QUALITY	Adjust video quality
AUDIO	Select ON to record audio
FRAME	Adjust frame rate (fps) for smoother playback
PRE	Set Pre-recording Duration (Unit Seconds)
POST	Set Post-recording Duration (Unit Seconds)

Recording Schedule Configuration



[Screen 3-21] Record Schedule Configuration

Configure recording schedule

- ① Select a channel to schedule
- ② Select type of event to schedule
- ③ Click and drag using mouse cursor to select the specific time schedule. Schedule may be selected hour by hour.

Event & Alarm Configuration

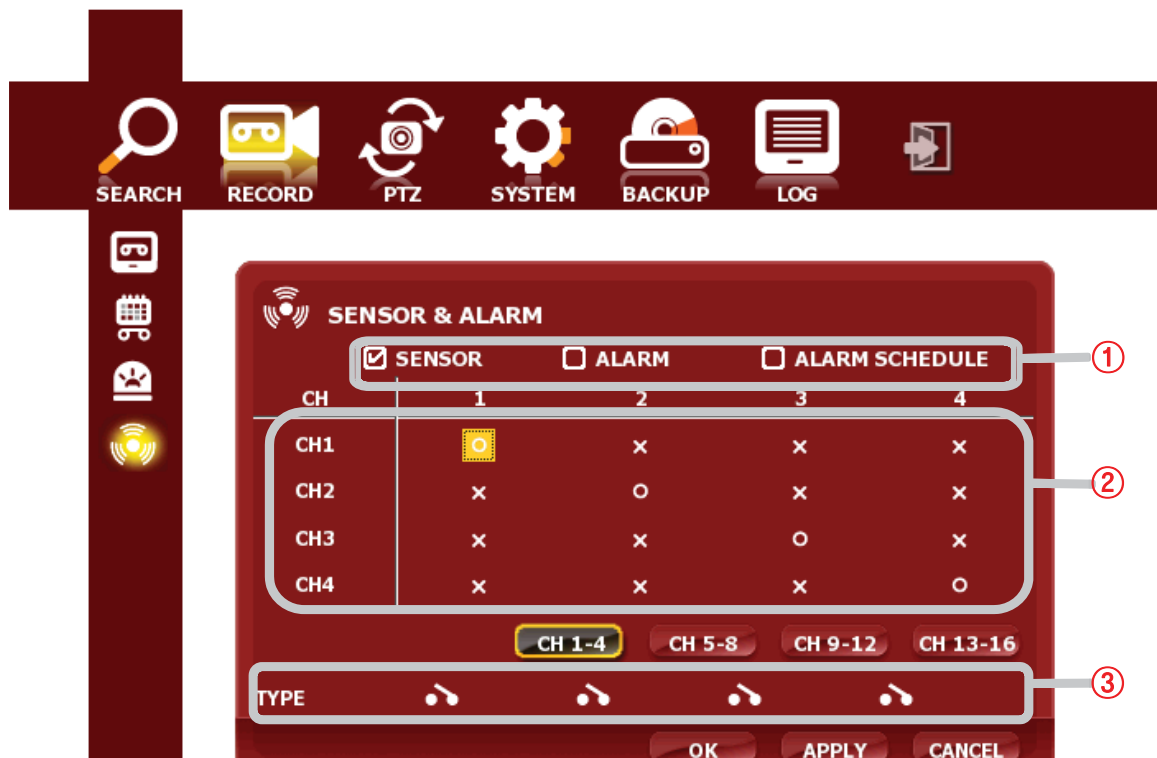


[Screen 3-22] Event & Alarm Configuration

Select which events will trigger which type of notification in this configuration screen.

- ① Select a channel to configure.
- ② Select which of the event triggers would activate an event.
- ③ Configure preset settings for each event.
- ④ Select the response (type of notification) of DVR system to the events selected in ②.
- ⑤ Specify the duration time that an alarm stops automatically.

Sensor In & Alarm Out Configuration



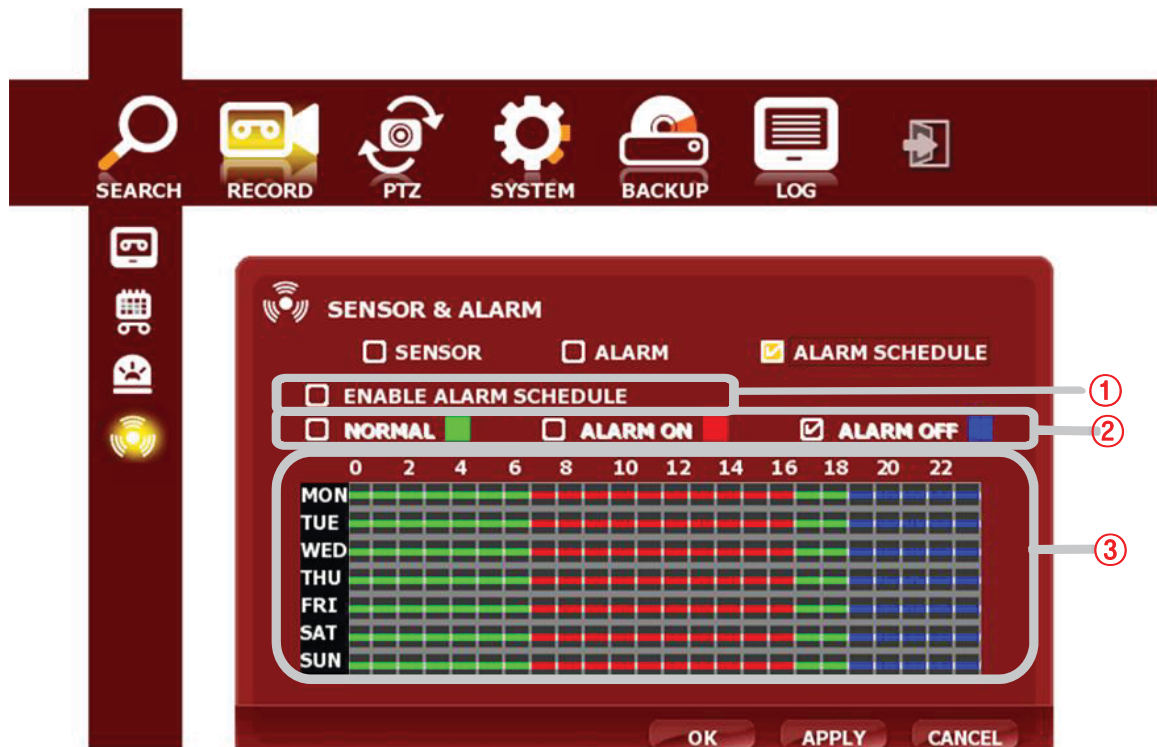
[Screen 3-23] Alarm In & Alarm Out Configuration

Configure SENSOR In or ALARM Out box to configure settings for SENSOR In or ALARM Out. In the above picture, each rows mean Video channels and each columns mean the channel of Sensor or Alarm. It's available to configure multiple Sensors or Alarms to a Video channel and to configure multiple Video channels to a Sensor or Alarm channel.

- ① Select one item to configure Sensor or Alarm
- ② In the O/X table, configure which Sensor device or Alarm device to connect to which video channel.
'O' means Sensor of Alarm is assigned to a video channel,
'X' means Sensor of Alarm is NOT assigned to any video channel.
- ③ Set up sensor (alarm in) type and alarm (alarm out) type on the bottom.

- ※  NC: Normal Close
 NO: Normal Open

Alarm Schedule Configuration

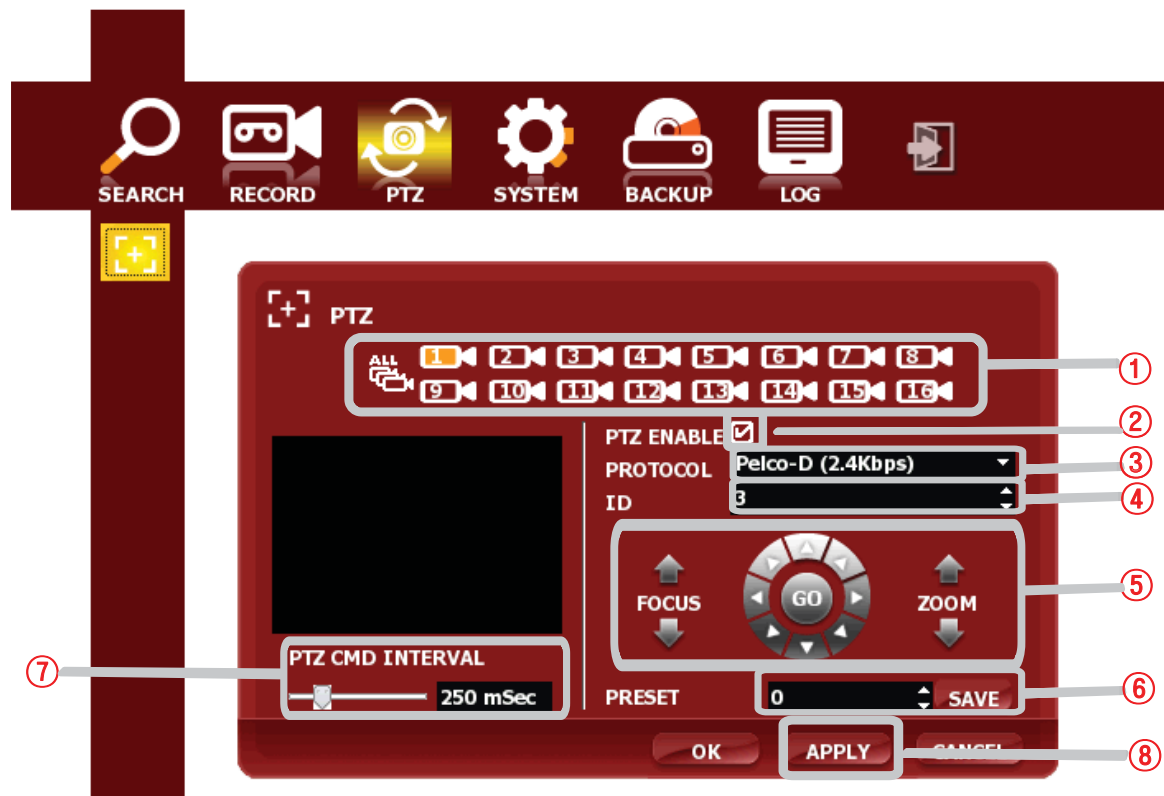


[Screen 3-24] Alarm Schedule Configuration

Configure alarm schedule

- ④ Enables alarm schedule configuration.
- ⑤ Select a schedule option.
 'NORMAL', the alarm is schedule to normal action.
 'ALARM ON', the alarm is schedule to always active.
 'ALARM OFF', the alarm is schedule to always inactive.
- ⑥ Click and drag using mouse cursor to select the specific time schedule. Schedule may be selected hour by hour.

PTZ Configuration



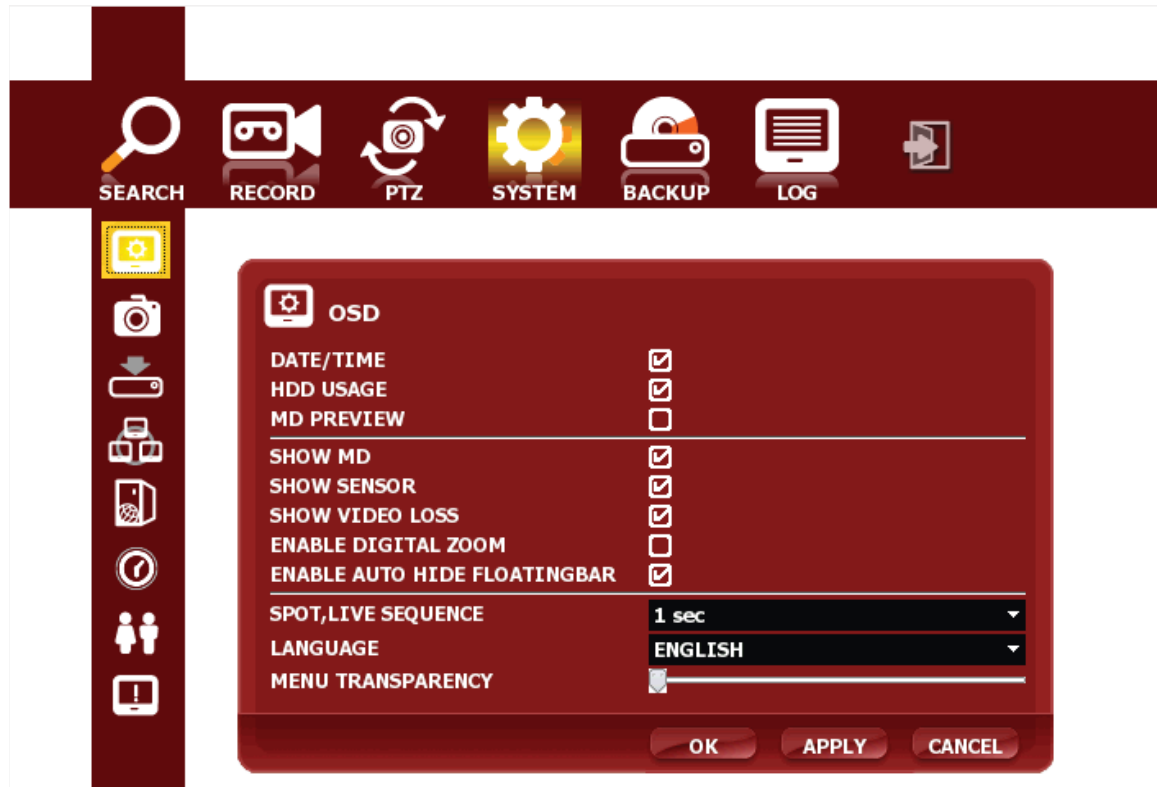
[Screen 3-25] PTZ Configuration

Configure PTZ protocol for each channel,

- ① Select channel to setup PTZ
- ② To activate a PTZ, please click PTZ ENABLE
- ③ Select the appropriate PTZ PROTOCOL.
- ④ Select the right PTZ Address ID (1-255)
- ⑤ Move PTZ camera direction to a position.
- ⑥ Save PTZ preset number by pressing the “SAVE” button after setting the “PRESET” number.
- ⑦ Set PTZ command time interval.
- ⑧ Click “Apply” or “OK” to save changes.

System Configuration

OSD (On Screen Display) Configuration

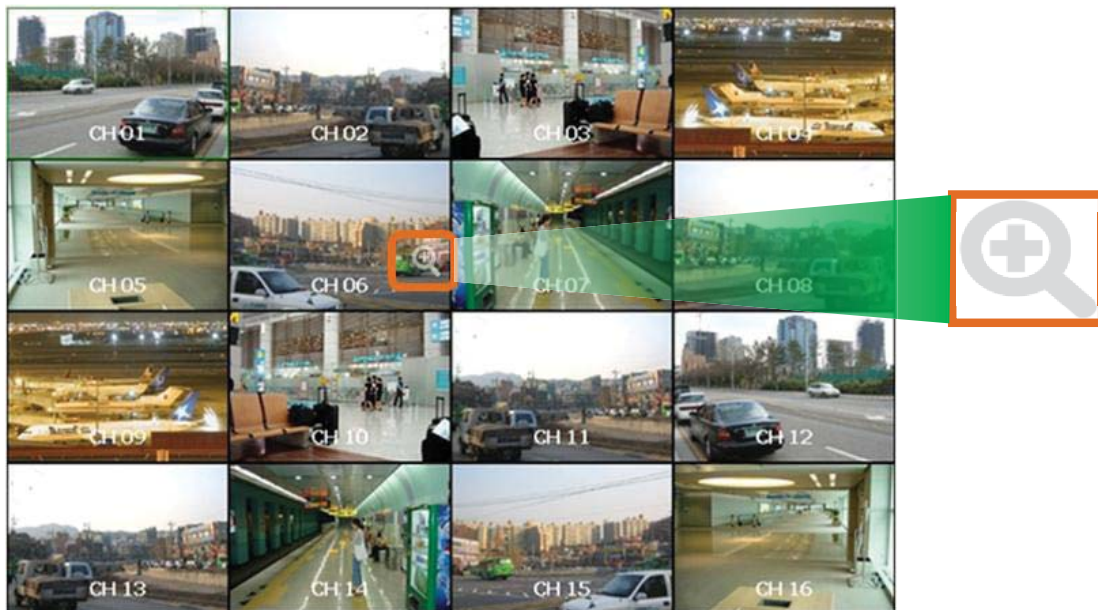


[Screen 3-26] OSD Configuration

Configure OSD of the live surveillance video channels.
The following table is a detailed explanation of OSD setting.

ITEM	DESCRIPTION
DATE TIME	Center date/time status bar ON/OFF
HDD GAUGE	Center HDD status bar ON/OFF
MD PREVIEW	Motion preview box grid ON/OFF
SHOW MD	MD status icon ON/OFF
SHOW SENSOR	SENSOR status icon ON/OFF
SHOW VIDEO LOSS	VIDEO LOSS status icon ON/OFF
ENABLE DIGITAL ZOOM	Enable/Disable Digital Zoom for cameras even do not support zooming function (Refer to the next page)
ENABLE AUTO HIDE FLOATINGBAR	Enable/Disable auto-hide function for the Floating bar on the live display mode
SPOT,LIVE SEQUENCE	Spot/ live sequence dwell time
LANGUAGE	Language setup
@-BLENDING	Transparency configuration

Digital Zoom



[Screen 3-27] Enabling Digital Zoom

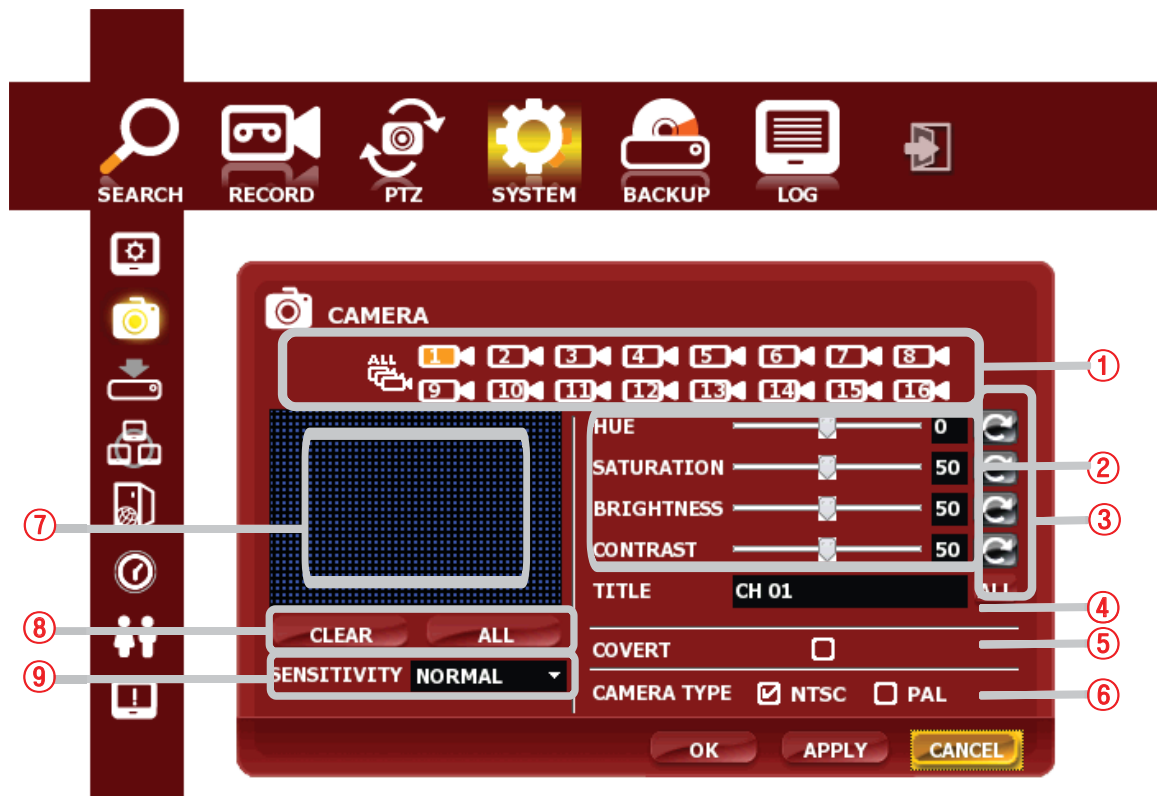
In the screen, it enables Digital Zoom function by checking the Enable Digital Zoom check box. Digital Zoom function is for enlarging the Video Image for cameras even do not support zooming function. As the above screen, Digital Zoom icon will be displayed when moving the mouse pointer over the selected channel. Mouse clicking the icon, Digital Zoom will be activated as the screen of the following page.



The video image moves when mouse clicking to a point to move on the screen with Digital Zoom mode as the above screen. Click the Digital Zoom icon to quit Digital Zoom mode.

[Screen 3-28] Digital Zoom Mode

Camera Configuration



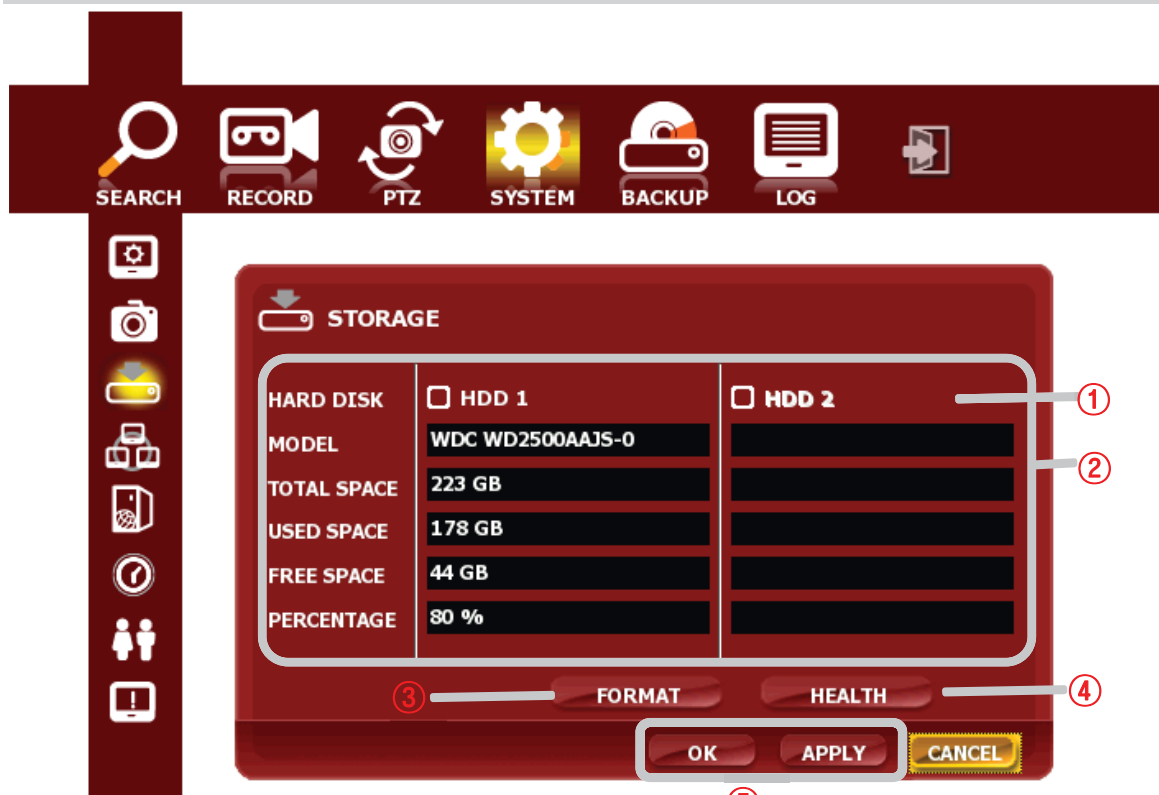
[Screen 3-29] Camera Configuration

Adjust color settings for each channel, and other channel/camera-related setting

- ① Select a channel to configure (Indicated with Yellow)
- ② Configure
HUE, SATURATION, BRIGHTNESS, CONTRAST for video channels.
- ③ Recall the factory default configuration.
- ④ Configure channel caption
- ⑤ COVERT / CAMERA OFF:
 - COVERT: The channel will be hidden in the live screen, but if the channel is configured to record in the record settings, the channel will be recorded.
 - CAMERA OFF: The channel will be hidden in the live screen, and even if the channel is configured to record in the record settings, the channel *will not* be recorded.

- ⑥ Camera Type: Select camera video signal by regions.
- ⑦ Configure motion detection area with mouse dragging or arrow buttons & OK button of the remote control unit(RCU).
- ⑧ Clicking “CLEAR” button unsets the entire area of motion detection area. Clicking “ALL” button sets the entire video area to motion detection area.
- ⑨ Configure motion detection sensitivity.

Storage Configuration



[Screen 3-30] Storage Configuration

Recording space can be chosen and status of each hard drive can be checked in this menu

- ① Select a storage to format
- ② Display storage usage status
- ③ Format the selected storage by ①
- ④ Check health status to the selected HDD by the above ①.

Network Configuration

NETWORK CONFIG

① **STATIC IP ADDRESS** ▼

IP Ex) 192.168.1.100

NETMASK Ex) 255.255.255.244

GATEWAY Ex) 192.168.1.1

DNS Ex) 192.168.1.1

②

ID USERID

PASSWORD *****

③

DDNS DDNS SVC ▼ ④

ID Ex) DVR MAC ADD. Or Custom

URL CHECK

Ex) DVRID.DDNSSERVICE.COM:8080 ⑤

OK APPLY CANCEL

[Screen 3-31] Network Configuration

Configure network connection,

- ① Network settings allow Static IP, Dynamic IP, PPPoE
- ② The form to input setting values for Static IP
- ③ The form to input setting values for PPPoE.
- ④ DDNS is supported by DDNSSERVICE.COM and DynDNS
- ⑤ The form to input setting values for DDNS by ④.
- ⑥ DDNS SERVICE

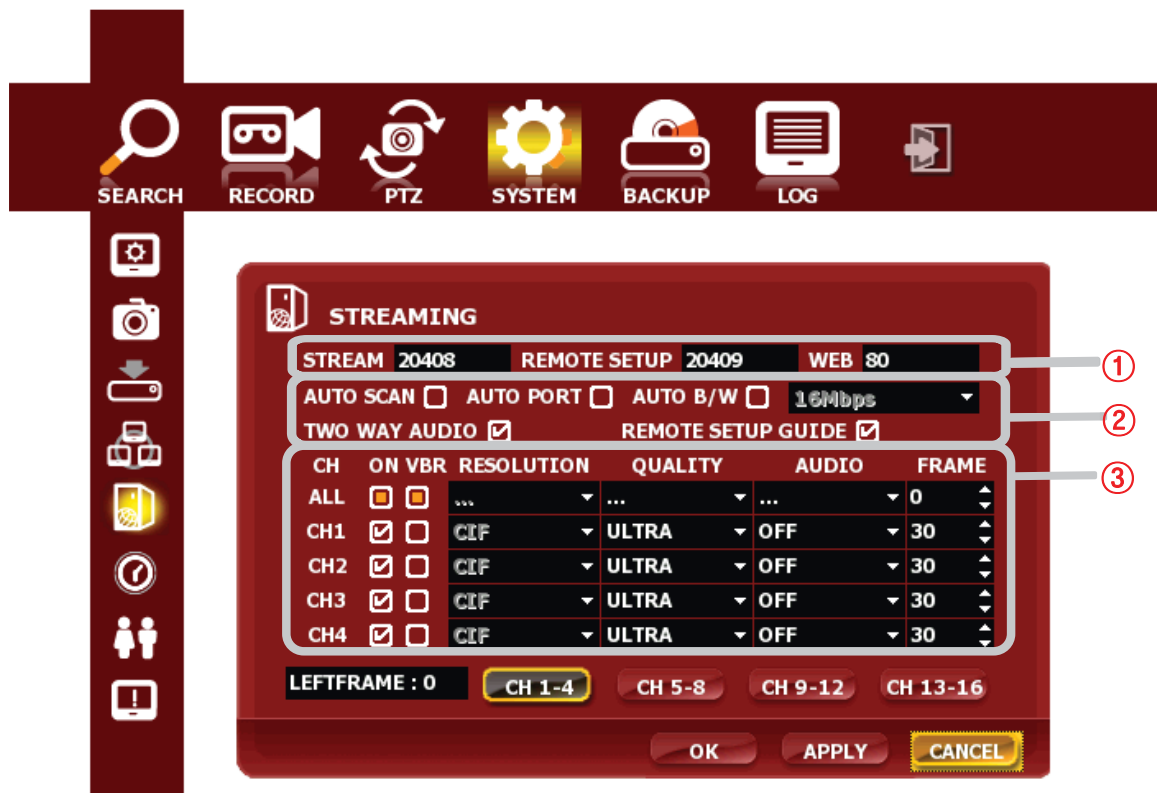
Activating DDNS



[Screen 3-32] DDNS Configuration

- ① Select Network Type
- ② Select DDNS Service If Needed.
- ③ By default your automated DVR Host ID is your MAC address of your DVR.
- ④ To Creating a Customized Host ID: Enter the Desired ID on ID field.
- ⑤ Click “CHECK” for an availability. Name other if taken by other user.
- ⑥ If Successful, DVR will generate new DDNS Address.
EX) [http://**yourid**.ddnsservice.com:port_number](http://yourid.ddnsservice.com:port_number)

Streaming Configuration



[Screen 3-33] Streaming Configuration

Configuration streaming environment,

- ① Streaming/ Remote Setup/ Web Port No. : Configure network ports for Standalone Client and TWC(Thin Web Client)
 - The default value for streaming: 2000
 - The default value of remote setup: 2001
 - The default value of Web port: 2002
- ② Configuration for streaming add-on functions
 - ※ AUTO SCAN
 - This option enables the DVR set to support uPnP function so that some client software like Windows Explorer can find the DVR set easily in a LAN environment.
 - ※ AUTO PORT
 - This option enables the DVR set to configure Port

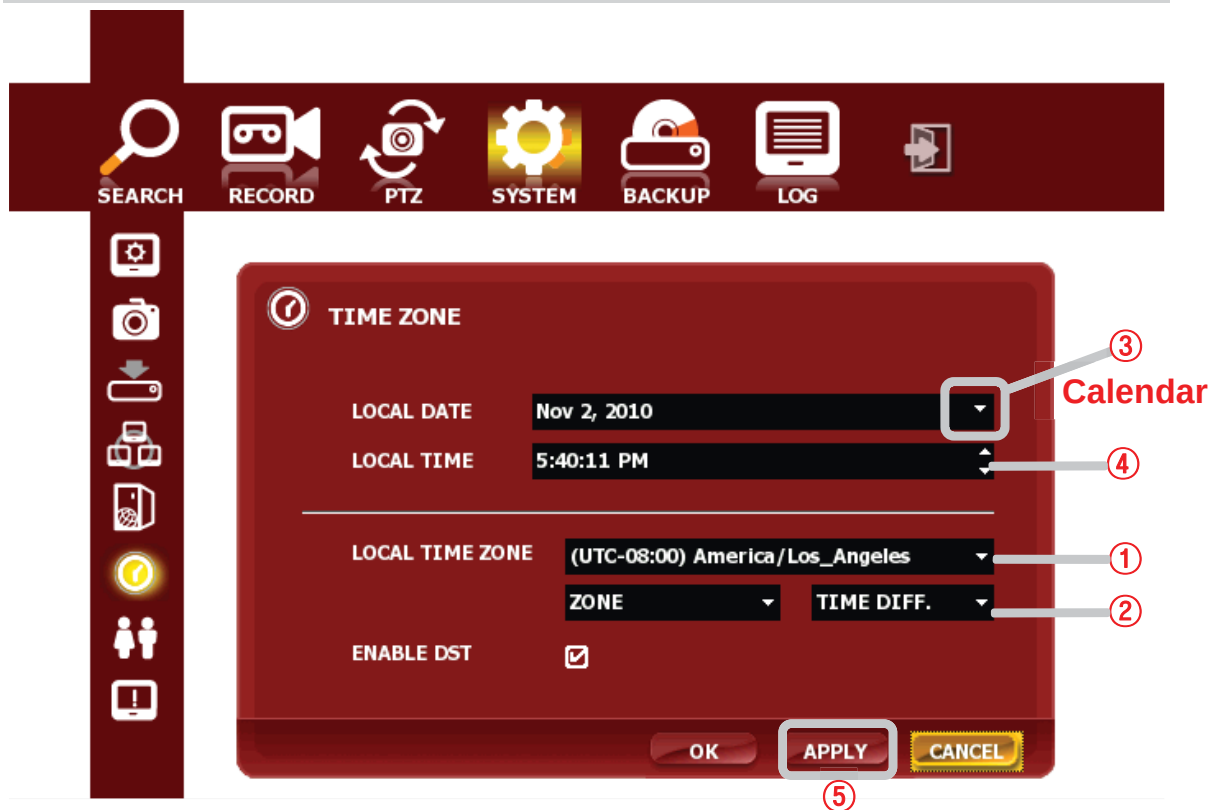
Forwarding setting of an IP router automatically when the DVR set is connected to an IP router in a LAN environment.

- It sets the network port number for both the DVR set and an IP router side by the setting value ① without additional configuring an IP router.
- ※ AUTO B/W (Automatic Bandwidth)
 - It sets the DVR streaming bandwidth with the value of user configuration.
 - To make the streaming bandwidth within the bandwidth of a network, it configures FPS and Image Quality settings automatically.
- ※ TWO WAY AUDIO
 - It enables bi-directional audio between a net client and the DVR set.
- ※ REMOTE SETUP GUIDE
 - It enables the DVR operator can monitor remote configuration with real time.

③ Video Resolution, quality, audio, and frame rate table is as follows,

ALL	Apply the same settings to all channels
CH	Channel specific setting
ON	Select to turn on/off recording of a channel
VBR	Network bandwidth for streaming video varies by motion with this setting. More motion takes more network bandwidth.
RESOLUTION	Adjust video resolution
QUALITY	Adjust video quality
AUDIO	Select ON to record audio
FRAME	Adjust frame rate (fps) for the streaming speed of the selected channel

Date & Time Configuration



[Screen 3-34] Date & Time Configuration

Configure system date & time setup,

- ① Check and configure the local time zone.
 - ② Configure the time difference and location.
 - ③ Change current date. Click on section to open calendar [Screen 5-17]. Select the day, month, year, hour, minute, second with the mouse.
 - ④ Select hour, minute, or second with mouse clicking and set the time by clicking the up/down arrows or by turning the mouse wheel up or down.
 - ⑤ Click “APPLY” or “OK” to save setting.
- ※ Changing time zone changes the current GMT time automatically.



[Screen 3-35] Date Setup

- ⑩ Move from month to month by clicking ←, →
- ⑪ Select a date by clicking on a day in the calendar.
- ⑫ Click "Apply" or "OK" to save changes.

User Management Configuration

[Screen 3-36] User Management

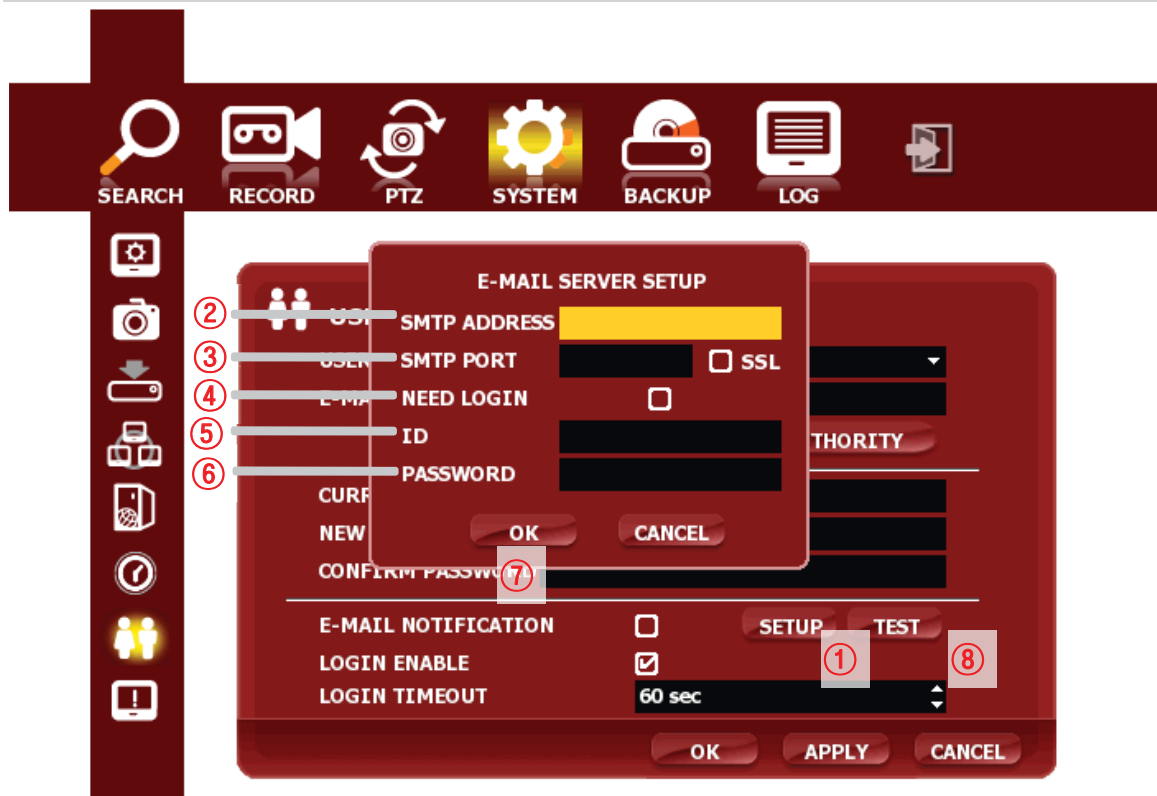
Configuration user management,

- ① Select user level to configure [ADMIN, MANAGE, USER1~4]
- ※ Warning: The factory default setting value for the password of the “ADMIN” account is empty.
- ② Edit user email address
- ③ Configure the account level (the available user functions) for each user.
- ④ Password: Settings will be applied only if the correct password is entered in "Current Password."
- ⑤ If this box is checked, enable the user email address edit box.(②)
- ⑥ A pop up window for configuring e-mail server information will open..
- ⑦ Login Enable/Disable: If this box is checked, the login

window will not pop up when opening the menu.

- ⑧ Login Timeout: After the most recent login, the login window will not pop up for certain time duration.
 - a. The time is in seconds, and the default value is 60 seconds.
- ⑨ Click "APPLY" or "OK" to save settings

User Mail Server Configuration

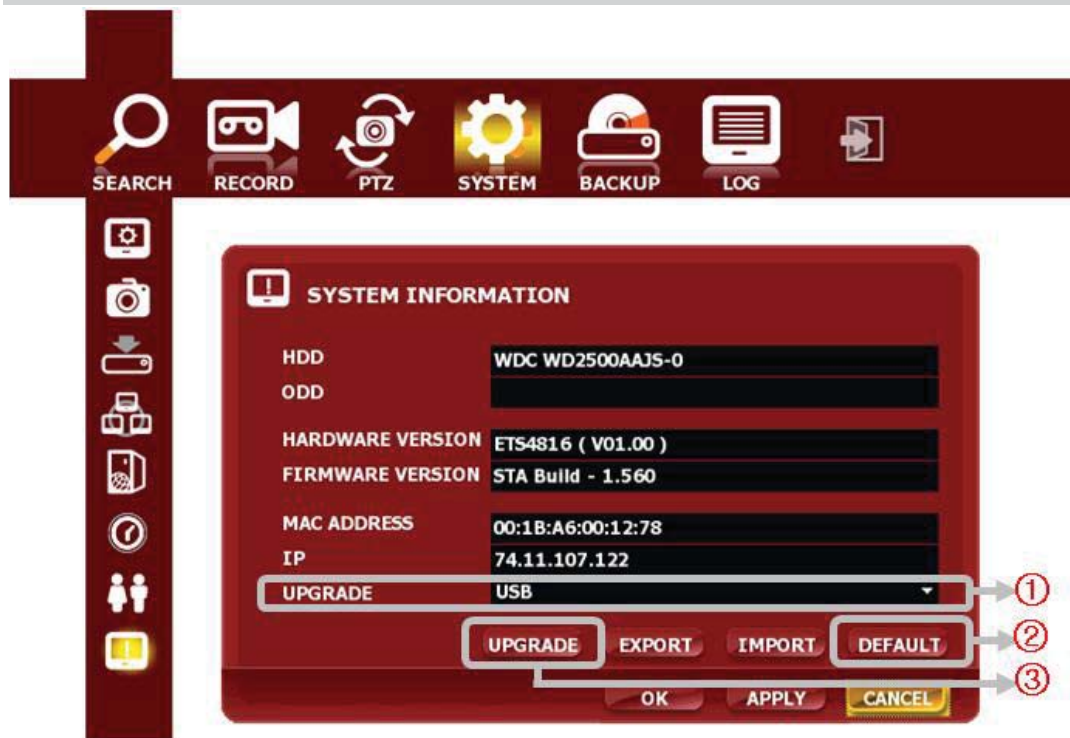


[Screen 3-37] Mail Server Configuration

Click SETUP button in the above screen to configure e-mail server information.

- ① SETUP: Click to open a pop up window for configuring e-mail server information.
- ② Input e-mail server address
- ③ Input e-mail server port number.
- ④ If this box is checked, login necessary at the time of set of the e-mail server
- ⑤ Input e-mail user ID
- ⑥ Input e-mail password.
- ⑦ Click OK to save settings.
- ⑧ Click to test the e-mail notification function.

System Information



[Screen 3-38] System Information

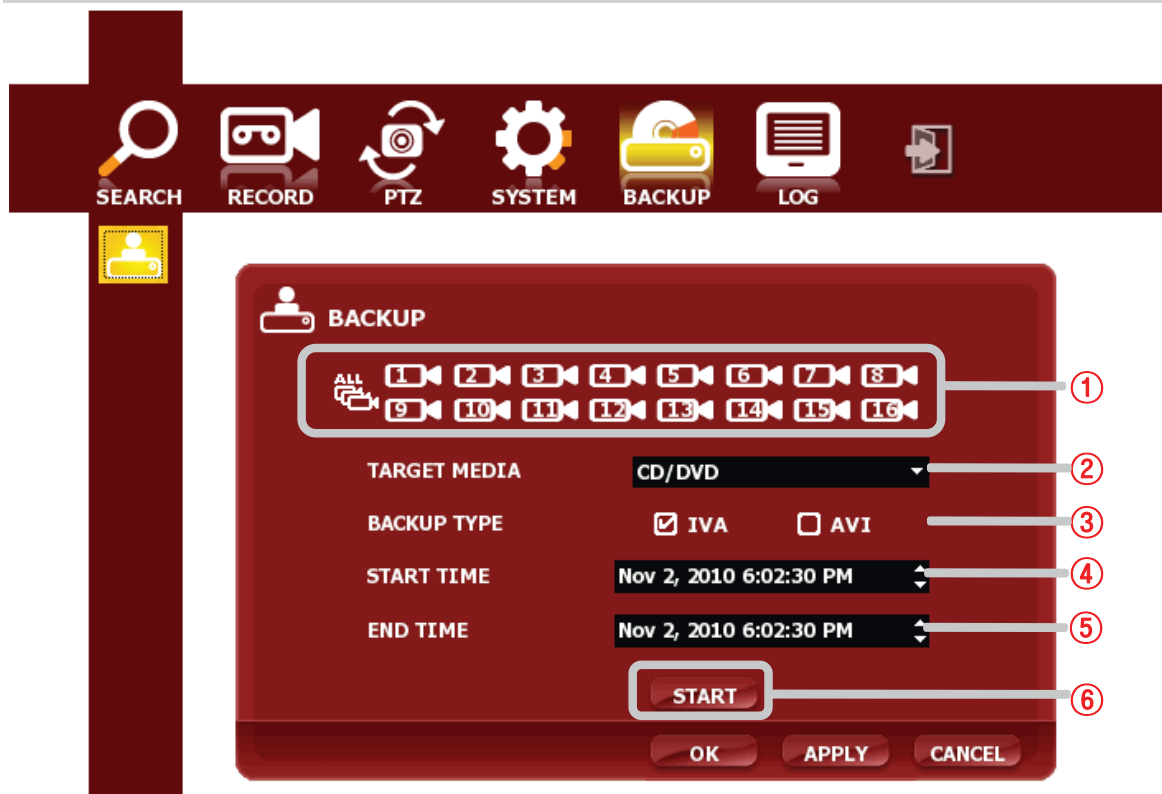
In system information menu, a number of system information is displayed, and user can also upgrade the DVR firmware.

- ① Upgrade
 - Select the storage medium which contains the upgrade firmware
 - Press the upgrade button to start upgrading the firmware
 - If the storage medium contains a multi-national language pack or the web client pack, they will be upgraded altogether.
- ② Default: Reset all settings to the factory default values.
- ③ Click “UPGRADE” to start upgrade.

The system will reboot automatically when upgrade is finished.

※ **CAUTION:** In case of upgrade with a USB memory stick, it's strongly recommended to remove a USB memory stick just after executing “Safely Remove Hardware” in Windows Operating system when copying a F/W file to the USB memory stick. Unless it can cause a severe problem when upgrade.

Backup

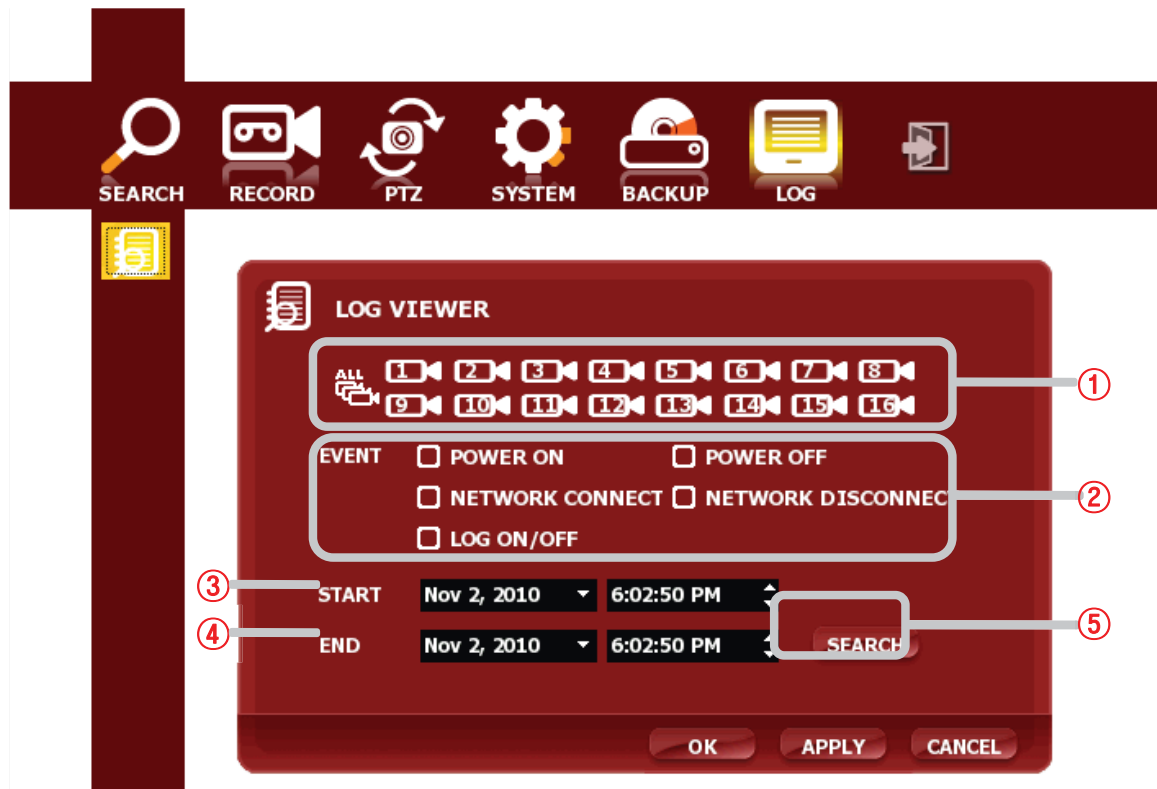


[Screen 3-39] Backup

Record data backup with the menu,

- ④ Select the backup channel
- ⑤ Select backup medium (CD-ROM, USB Storage)
- ⑥ Select the type of backup data.
- ⑦ Specify Start of backup date, time
- ⑧ Specify End of backup date, time
(Remember to review and write down which data to backup from search mode)
- ⑨ Click on **START** to start backup process

Log Viewer



[Screen 3-40] Log Viewer

Search system logs,

- ① Select the channel
- ② Select the event
- ③ Start date, time
- ④ End date, time
- ⑤ Click "SEARCH"

※ Results will be displayed in the following screen.





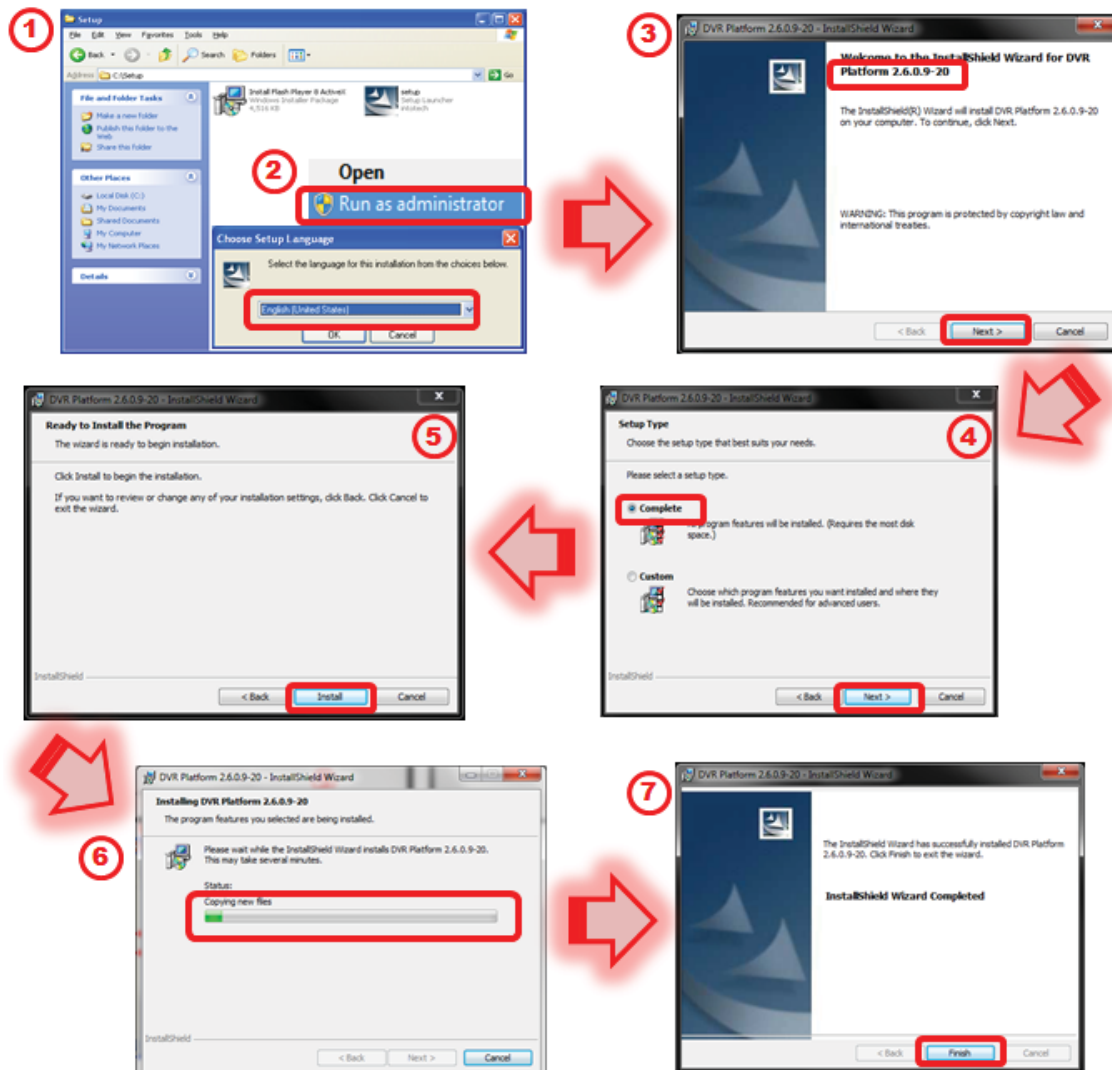
4. Standalone Client

4. Standalone Client

Keyword Glossary in this chapter

Words	Pages
Adding Server	79, 80, 81
Bookmark	101
CMS Log In & Password	112
Connecting & Disconnecting Server	114~116
DVR Platform CMS	73, 112
E-map-Configuration	121
Event List	122, 123
Installing CMS	73
Launching CMS	74
PTZ Control	103
Remote Backup	70, 130, 136
Remote Search & Playback	97, 107, 108, 123
Remote Setup	102
Storage(Bank) Setup & Layout	74, 76

DVR Platform Installation



Installation Guide

- ① Run Setup.exe program with admin privilege or “Run as Administrator”.
- ② Setup Language (System Locale Language by Default if supported).
- ③ Check DVR Platform™ Version
- ④ Setup Type Selection (Choose Complete when not sure).
- ⑤ Click on “Install” button to start the installation.
- ⑥ Wait during the installation progress.
- ⑦ Click on “Finished” button when setup is completed.

Launching DVR Platform CMS

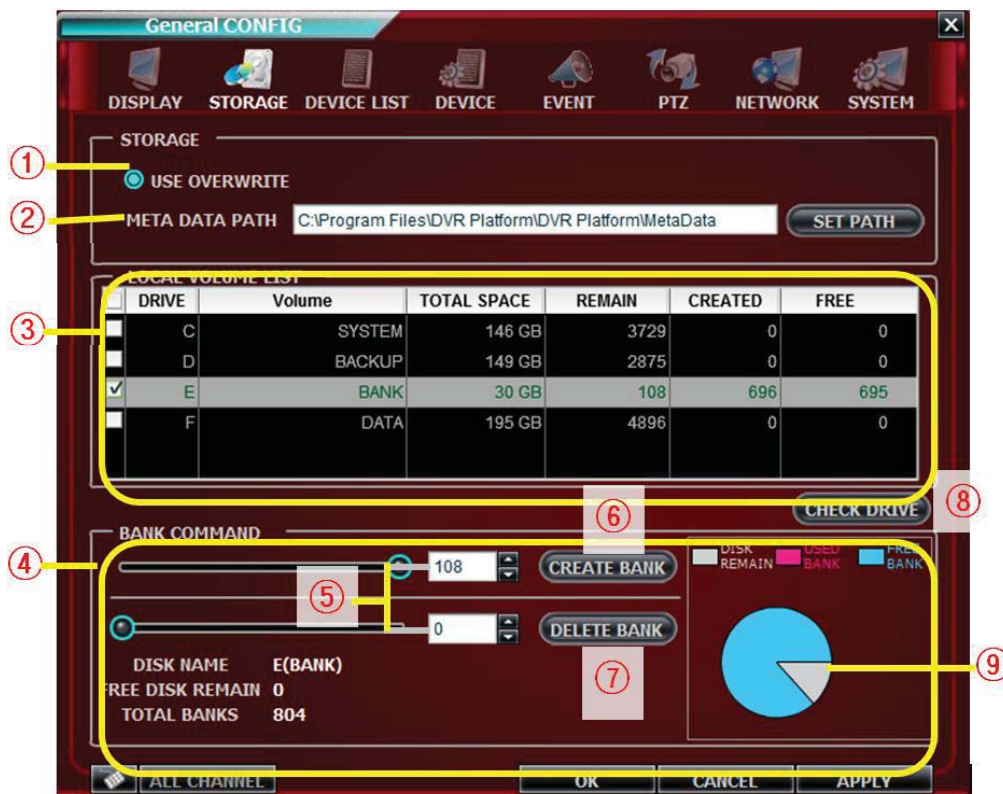


Click on DVR Platform icon from desktop.



Wait until the initial diagnosis process is completed.

Storage Space Setup Layout



※ **Important !** The CMS requires a remote storage space called “Bank” before running the program. Bank size & location MUST be assigned. User not using remote recording feature still need to create minimum of 1 bank to proceed to next step.

- ① Overwrite: When the space is full in created banks, standalone client will overwrite the banks in order of oldest

banks first

- ✧ If “Overwrite” is not selected, standalone client does not overwrite when the banks are full
- ② Meta Data Path: Select a local folder for storing the Meta Data when recording (Default Location recommended)
 - ✧ Meta data (Meta Information): Additional information about the recorded data. It contains links between the recorded events and video, and the actual storage files.
- ③ Local Volume List: Select the local repositories for recording

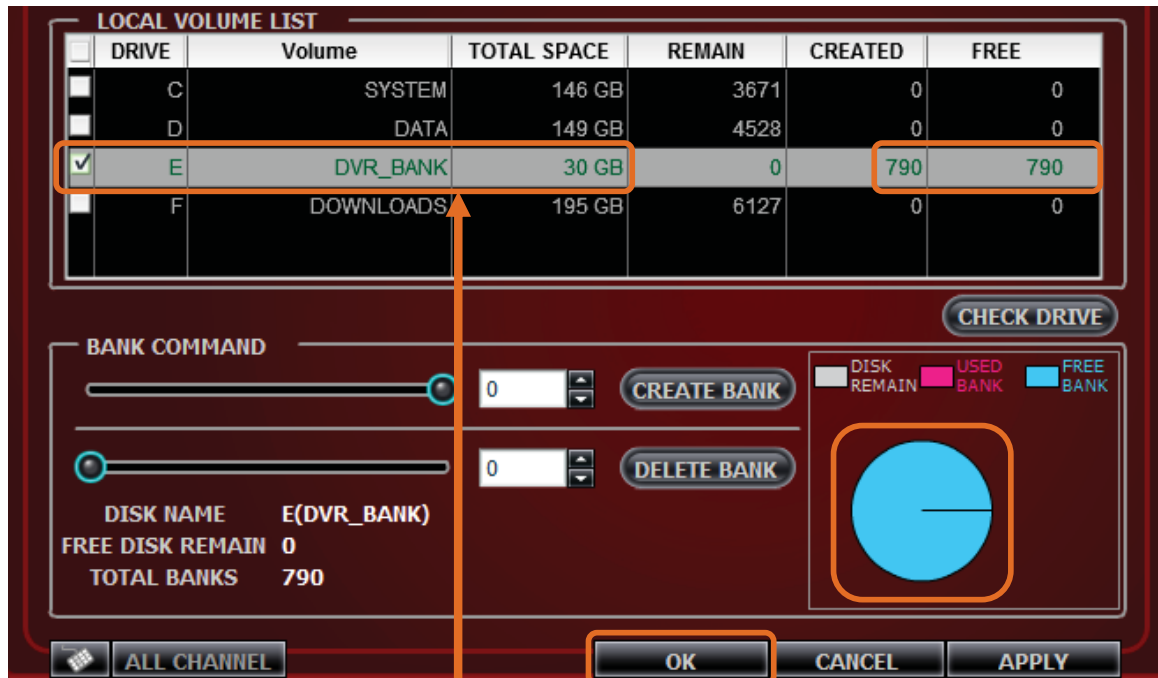
Multiple Repositories can be set:

 - Space(Total space): Total space of HDD
 - Remain (Remaining space): Number of storage space (bank) that can be created in the remaining HDD space
 - Created: Number of created storage spaces(banks)
 - Unused: Number of storage spaces (banks) that have not been used yet
- ④ Bank Command: Controllers for Creating/ Changing/ Deleting each selected repositories
- ⑤ Bank Count: Set the number of File banks to be used as recording repository

The maximum File bank count will be displayed for the default value and the value can be modified with mouse dragging.
- ⑥ Create Bank: Creating Recording Repositories
- ⑦ Delete Bank: Deleting Recording Repositories
- ⑧ Select Bank: Selecting Recording Repositories
 - ✧ Bank Definition

A bank is a storage space for recording in standalone client. One bank consists of 32MB of disk space. Data is recorded only in the banks created by the user.
- ⑨ Storage Graph: Displays the status of the selected storage with a pie-graph.

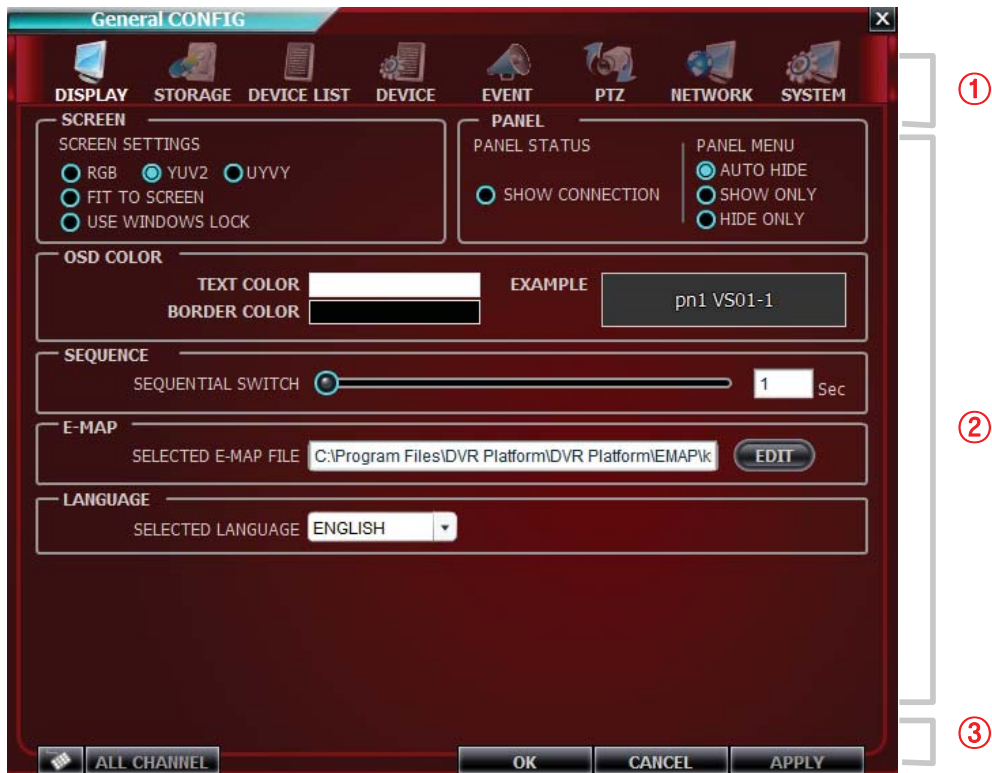
- ④ Select the Local Drive with newly created banks to see the in which File banks were created.



- ④ File bank creation completed

Configuration

GUI Main Feature



- ① Configuration List Tab
All configuration items are located on the Top Configuration Bar. Click a configuration icon to move to another configuration window.
- ② Configuration Window
Detailed configuration settings for each configuration item are located here.
- ③ Common Command Button
 -  Virtual Keyboard : View Virtual Keyboard Window
 - ALL CHANNEL : apply All Channel
 - OK: Close window after applying changes.
 - Cancel: Close window without applying changes.
 - Apply: Keep window open after applying changes.

Display Configuration



- ① RGB/YUV2/UYYVY: Select an Overlay Surface type
 - Color format depends on the graphic card
 - Default Setting is YUV2
- ② Fit To Screen: Select to fit standalone client window size to the monitor resolution
- ③ Use Windows Lock : Enable/Disable windows Lock
- ④ Show Connection: Enable/Disable showing connection information in the display area
- ⑤ Status Bar: Select whether to keep the status bar visible
 - Auto Hide: hide it automatically in the display area
 - Show Only: always keep the status bar visible
 - Hide Only: always keep the status bar hide

- ⑥ OSD Color: Set the text color for the information OSD character on the display panel.
 - TEXT COLOR: Configure text color of OSD
 - BORDER COLOR: Configure border color of channels
- ⑦ Example: An example of OSD character that will be shown on the panel
- ⑧ Sequential Switch: Set the time interval for Sequential Video Channel Switching
- ⑨ E-Map File: Select an E-Map background picture file
 - If not selected, default background in use
 - Recommended file size: 1024x768(resolution)
 - Supported file format: JPG, JPEG
- ⑩ Language: Select the language standalone client

Device List Configuration

Device Input Table: A grid configuration table to configure added devices.

General CONFIG

DISPLAY STORAGE **DEVICE LIST** DEVICE EVENT PTZ NETWORK SYSTEM

DEVICE INPUT FORM

TYPE: Standalone NAME: Your_DVR_Nam IP: 1.1.1.1 PORT: 20408
 Ch: 16 ID: admin PW: **ADD**

TYPE	NAME	IPADDRESS	PORT	CH	ID	PASSWORD
Standalone	Your_DVR	1.1.1.1	20408	16	admin	

IMPORT EXPORT ADD SEL REMOVE

TYPE	NAME	IPADDRESS	PORT	CH

ALL CHANNEL OK CANCEL APPLY

Add Device List

Queried Device List

- ① Add: Add a device with the information entered in the Input Form.
- ② Added Device List
 - Type: Device Type (ex: VS01, ST04, F3)
 - Name: Input device name
 - IP: Input network IP address for device
 - Port: Input network port for device
- ※ Default Port No: 20408 (Stream), 20409 (Setup), 80 (Web)
- ③ ID/ PASSWORD: Input network ID and Password for device
- ④ Queried Device list
- ⑤ Device add/remove button
 - Import: Import by selecting an XML configuration file exported from other standalone clients.
 - Export: Export all configuration setting values to an XML-typed file.
 - Add Sell: Click to add selected device. All available devices are queried by network and displayed the below grid table in figure ②
 - Remove: Remove selected device from the device input grid table in figure ①

Device Configuration

Remote Configuration of Each Device

- ※ This Device Configuration window does not support all Video Servers and IP cameras.



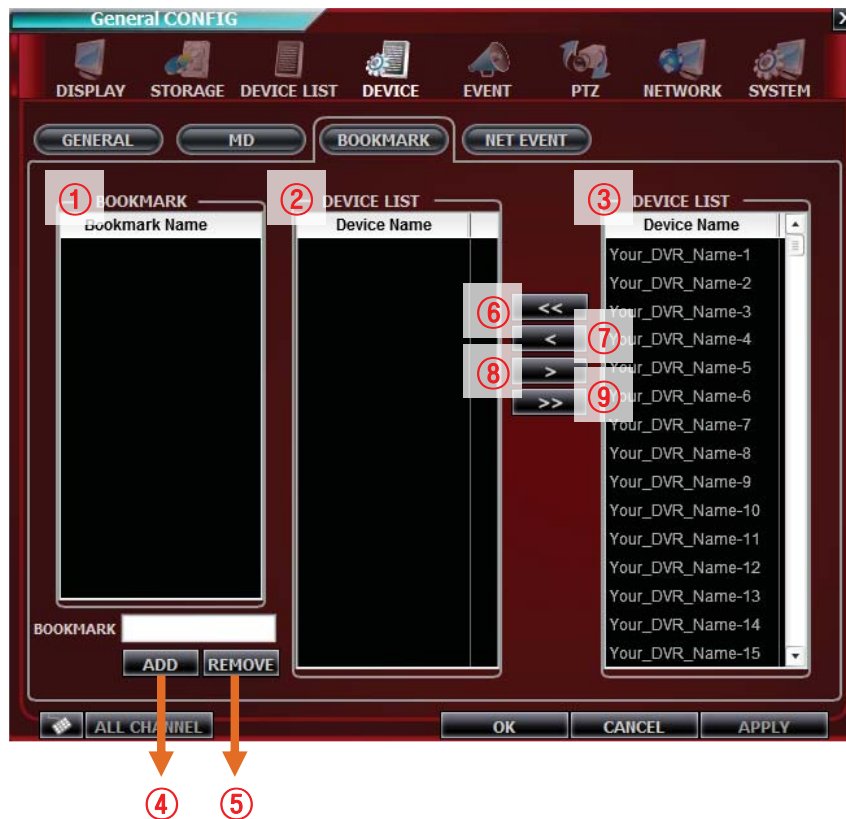
- ⑥ Resolution: Video resolution
- ⑦ FPS: Number of video frames per second(1~30)
- ⑧ Audio Enable: Choose whether to enable audio (ON/OFF)
- ⑨ Sensor Enable: Choose whether to enable sensors (ON/OFF)
- ⑩ Sensor Type: Choose sensor type *NO/ NC
*NO: Normal Open / *NC: Normal Close
- ⑪ Sensor Alarm: Choose whether to turn on the alarm when a sensor event occurs (ON/OFF)
- ⑫ MD Enable: Turn Motion Detection ON/OFF
- ⑬ MD Sensitivity: Configure the sensitivity of the Motion Detection (Different devices have different sensitivity ranges.)
- ⑭ MD Alarm: Choose whether to turn on the alarm when motion is detected

MD (Motion Detection) Configuration



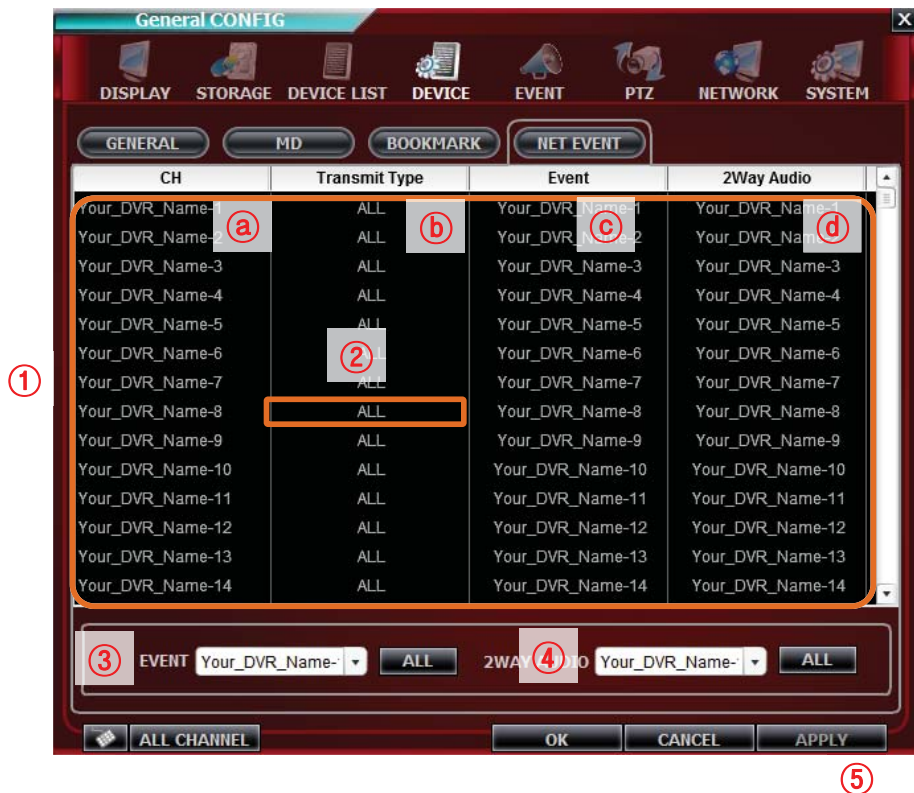
- ① Device List: The entire list of registered cameras in all servers.
- ② Device Information: Displays information about the selected device.
- ③ MD Area:
 - Configure the MD area with the mouse by click-n-drag.
 - ③a Area selected for MD
 - ③b Area being selected for MD by clicking-and dragging the mouse
- ④ MD Tool
 - Fill: Add MD area
 - Invert: Invert the MD area
 - Erase: Erase MD area
 - Copy: Copy the current MD area setting
 - Paste: Paste the temporarily stored MD area setting on to the current screen
 - Fill All: Configure the entire screen as MD area
 - Erase All: Erase all MD area in the screen

Bookmark Configuration



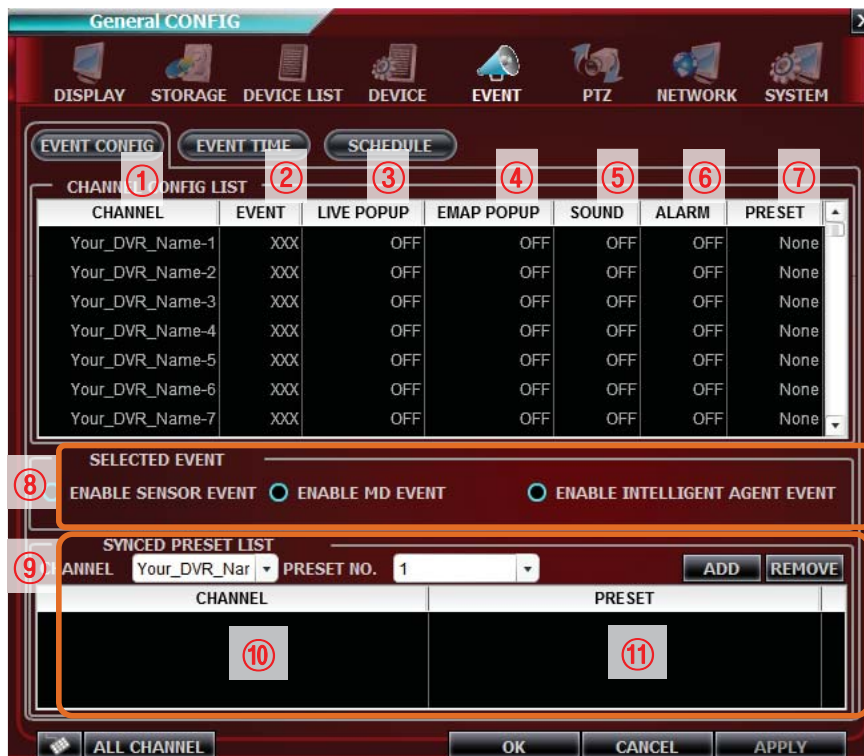
- ① Bookmark List
 - When selecting an added bookmark by mouse clicking, all relevant device names will be displayed at Device List at ②
 - ② Device List: Device Lists of a selected bookmark at ①
 - ③ Device List: All registered device lists
 - ④ Add: Add Bookmark
 - ⑤ Remove: Delete Bookmark
 - ⑥ <<: Register all devices to a bookmark
 - ⑦ <: Register selected devices to a bookmark
 - ⑧ >: Unregister devices from a bookmark
 - ⑨ >>: Unregister all devices from a bookmark
- ※ Bookmark: A function similar to the Bookmark (Favorites) of Internet Explorer. Specific channels can be selected into a group for easy access.

Network Event Configuration



- ① Select a CH to configure a network event
 - Network Event Information
 - ① CH: Channel name
 - ② Transmit Type: Select a data format that will be transmitted to panel. (All: Video, Audio and Event altogether)
 - ③ Event: Name of the channel that will output the events that occurred in CH.
 - ④ Audio: Name of the channel that will output the audio transmitted from CH.
- ② Select the Transmit Type by double-clicking(ALL: Video + Audio + Event or EVENT ONLY)
 - ③ Select a CH (EVENT) that will show the current CH's event data.
 - ④ Select a CH (AUDIO) that will output the current CH's audio data.
- ⑤ Click Apply to finish

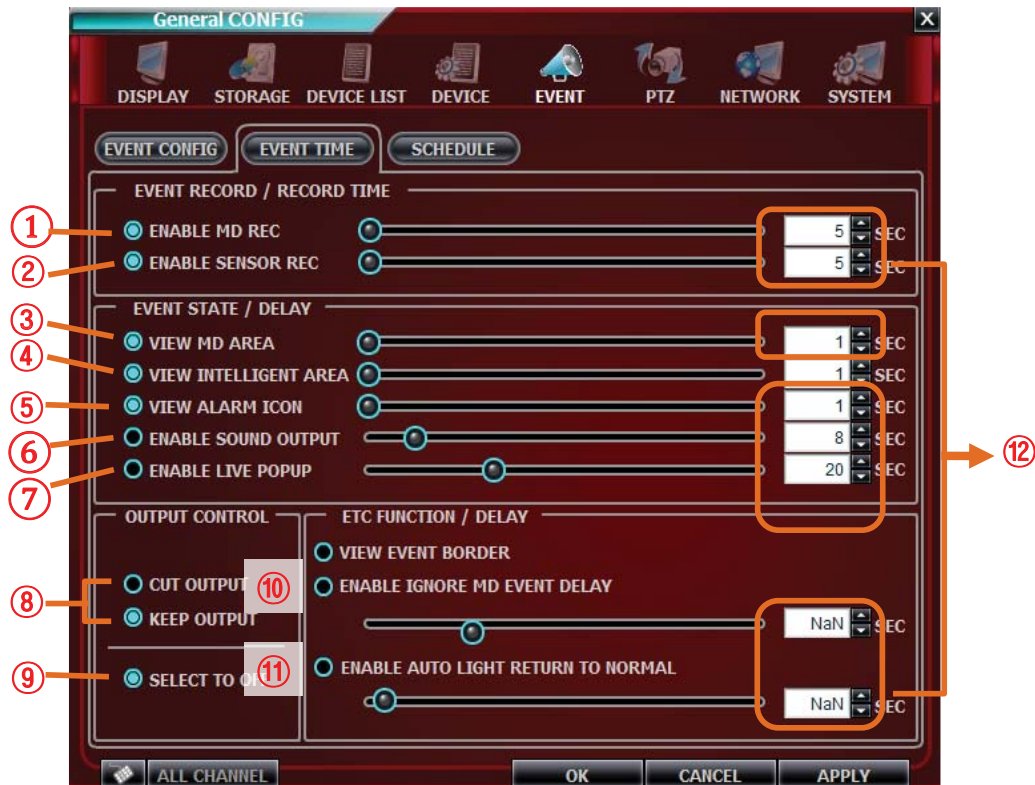
Recording Configuration by Events



- ① CHANNEL: Currently registered camera list of a server
- ② EVENT: Enable/ Disable event
- ③ LIVE POPUP: Enable/ Disable live display channel popup when configured event occurs
 - ④ EMAP POPUP: Enable/ Disable channel popup on the E-map window when configured event occurs
 - ⑤ SOUND: Enable/ Disable Event warning sound when configured event occurs
 - ⑥ ALARM: Enable/ Disable Alarm Out when configured event occurs
 - ⑦ PRESET: Enable/ Disable Preset when configured event occurs
- ⑧ Alarm selection menu
- ⑨ Preset setting menu when events occur
- ⑩ Camera list of the server uses preset when events occur
- ⑪ Preset number of preset for events

※ All configuration values can be set with mouse double click except Event or Preset configuration.

Recording Duration Configuration by Events



- ① Enable MD Recording Function: Enable/ Disable recording by Motion Detection. Set recording duration by moving the slide bar or inputting a number directly. (1sec~30min)
- ② Enable Sensor Recording Function: Enable/ Disable recording by sensor detection. Set recording duration by moving the slide bar or inputting a number directly. (1sec~30min)
- ③ View MD Area: Enable/ Disable displaying MD Box for Motion Detection. Set display duration by moving the slide bar or inputting a number directly.(1sec~30min)
- ④ View Intelligent Area: Enable/ Disable displaying event area for intelligent events. Set display duration by moving the slide bar or inputting a number directly. (1sec~30min)
- ⑤ View Alarm Icon: Enable/ Disable displaying Alarm Icon for Alarm out. Set display duration by moving the slide bar or inputting a number directly. (1sec~30mins)
- ⑥ Enable Sound Output: Enable/ Disable sound out

when events occur. Set display duration by moving the slide bar or inputting a number directly. (1sec~60sec)

⑦ Enable Live Popup: Enable/ Disable live displaying popup when events occur. Set display duration by moving the slide bar or inputting a number directly. (1sec~60sec)

⑧ Output control: Operating mode for alarm outputs.

- Cut Output: Enable/ Disable stopping Alarm out signal after 1 second.
- Keep Output: Enable/ Disable keeping Alarm out signal

⑨ Enable / Disable the function that turns the digital output state to “OFF” state when a channel is selected.

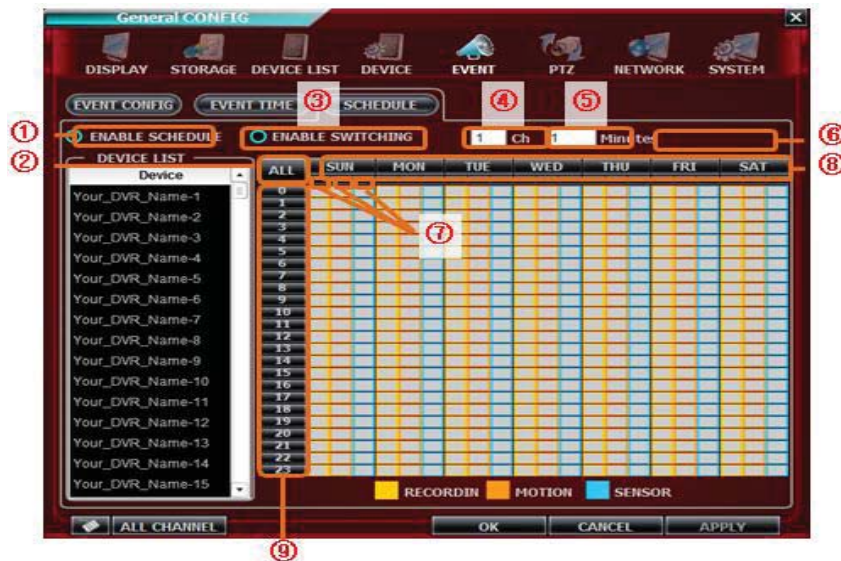
⑩ Enable Ignore MD Event Delay: Enable/ Disable and set duration between motion detection events. Set delay duration by moving the slide bar or inputting a number directly. (1sec~200sec)

⑪ Enable Auto Light Return to Normal: Enable/ Disable Automatic turning off lights for PTZ cameras. Set delay duration by moving the slide bar or inputting a number directly. (1sec~200sec)

⑫ Event duration.

※ Sec : second / 1800s (30minutes)

Recording / Schedule Configuration



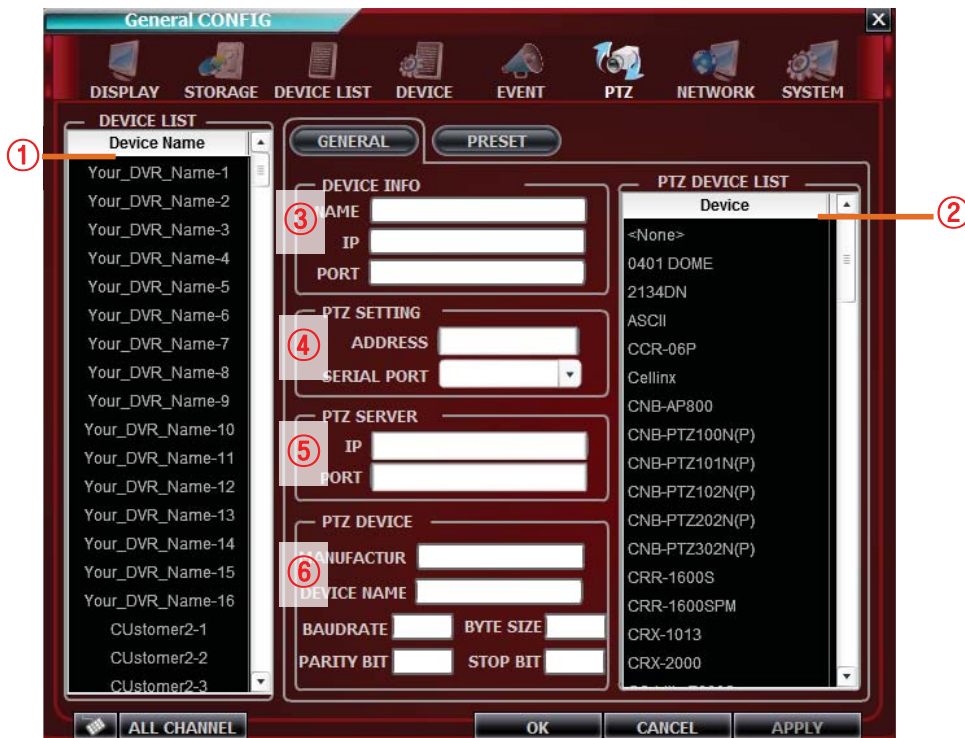
- ① Enable the Schedule: Enable/ disable schedule recording.
- ② All: Click to turn all schedule types, days, and hours ON or OFF
- ③ Enable *Switching Schedule: Enable/ disable switching schedule recording
- ④ Ch: Recording channel when switching schedule
- ⑤ Minute: Time of switching schedule Event
- ⑥ Apply All: Apply current settings to all channels
- ⑦ Schedule Type ON/OFF: Click tab to turn the schedule type ON or OFF for the day
- ⑧ Day ON/OFF: Click tab to turn all schedule types ON or OFF for the selected day
- ⑨ Hour ON/OFF: Click tab to turn all schedule types ON or OFF for the selected hour

※ Switching Schedule: Function that allows taking turns recording different channels. Designate the channels and recording duration and it will switch recording channels.

Ex) Total Channel: 36, Number of channels entered for Switching Schedule: 6, Set time: 10 minutes

(For the first 10 minutes, channels 1 ~ 6 will be recorded, and for the next 10 minutes, channels 7~ 12, and so on.)

PTZ(Pan/Tilt/Zoom) Configuration



- ① Device List: The entire list of registered cameras in all servers
- ② PTZ Device List: List of supported PTZ protocols(standalone client basically supports over 75 PTZ devices)
- ③ Device Information: Displays information about the selected device
- ④ PTZ Setting: Input PTZ setting values
 - Address: Input PTZ address
 - Serial Port: Select serial port number when using a local PTZ device
- ⑤ PTZ Server: Information about a central PTZ server where more than one PTZ device are connected. (When using a PTZ server - the PTZ command is sent to the PTZ server via network; the PTZ address is used to distinguish between each PTZ devices; and the serial port number is not supported.)
 - IP: IP address of the PTZ server
 - Port: Port number of the PTZ server
- ⑥ PTZ Device: Displays information about the selected PTZ protocol

Preset Configuration



- ① Device List: All registered device lists
- ② PTZ Configuration of Selected device
- ③ Preset: Preset number
- ④ Save: Preset position
- ⑤ Move: PTZ direction control
- ⑥ Preview: Preset preview
- ⑦ Scenario List: List of the registered presets
After a scenario starts, it will move from the top of the list to the bottom, stopping at each preset for the designated ⑧ delay time, and move on the next preset.
- ⑧ Delay Time: Delay time for each preset in a scenario
- ⑨ Add, Modify, Remove buttons: Scenario direct control
- ⑩ Scenario Repeat, start/ stop, pause/ resume function

Network Configuration

General CONFIG

DISPLAY STORAGE DEVICE LIST DEVICE EVENT PTZ NETWORK SYSTEM

1 NETWORK INFORMATION

NETWORK ADAPTER VIA Rhine III Compatible Fast MAC ADDRESS 00-1C-F0-9C-A6-48

2 IP ADDRESS

☒ STATIC IP ☐ DHCP

IP ADDRESS 74.11.107.117
GATEWAY 74.11.107.97
NETMASK 255.255.255.224
DNS SERVER 66.54.87.144

NeoDHS

☒ Use NeoDHS

NAME
ID
PASSWORD
PORT
URL

3 DDNS SCV

ID
URL

CHECK

CONNECT MANAGEMENT

RECONNECT COUNT 0 INFINITE
DELAY TIME (min) 1

ALL CHANNEL OK CANCEL APPLY

- ① Network Information: Displays information about the network adaptor(LAN Card) and MAC address(PC's LAN Card ID) of the current system
- ② IP Address: IP address of the current system
- ③ Connect Management : reconnect delay and retry count setting

System Configuration (General Tab)



- ① **SYSTEM INFORMATION:** Displays basic information about the current system
- ② **CONFIG BACKUP & RESTORE**
 - **BACKUP:** Back-up system configuration to an XML file
 - **RESTORE:** Restore system configuration from a backup file (.XML)

APPLICATION START

- ③ **OMIT DIAGNOSIS DIALOG:** Select to skip the *diagnosis dialog at program startup
 - ※ Diagnosis Dialog: System analysis at program Start-up (It is recommended to let the Diagnosis Dialog run each time program is run.)
- ④ **CONNECT AUTOMATICALLY:** Select to connect automatically to all registered servers at startup

LOG INFORMATION

- ⑤ **USE LOG:** Select to use logs
- ⑥ **E-Map:** Select a number for monitor of the e-map display
- ⑦ **Event List:** Monitor number for event list

System Configuration (Account Tab)

General CONFIG

DISPLAY STORAGE DEVICE LIST DEVICE EVENT PTZ NETWORK SYSTEM

GENERAL ACCOUNT VERSION

① ☒ USE AUTO LOGIN

② ☒ USE AUTO LOGOUT 1 Minutes

③

No	ID	PWD	GRADE
1	admin	*****	admin

④ LOCAL POLICY

- ☒ SYSTEM CONFIG ACCESS
- ☒ SYSTEM ACCOUNT ACCESS
- ☒ PLAYBACK ACCESS
- ☒ SYSTEM QUIT ACCESS
- ☒ PTZ CONTROL ACCESS
- ☒ RECORDING ACCESS

⑤ ACCOUNT INPUT FORM

ID

PASSWORD

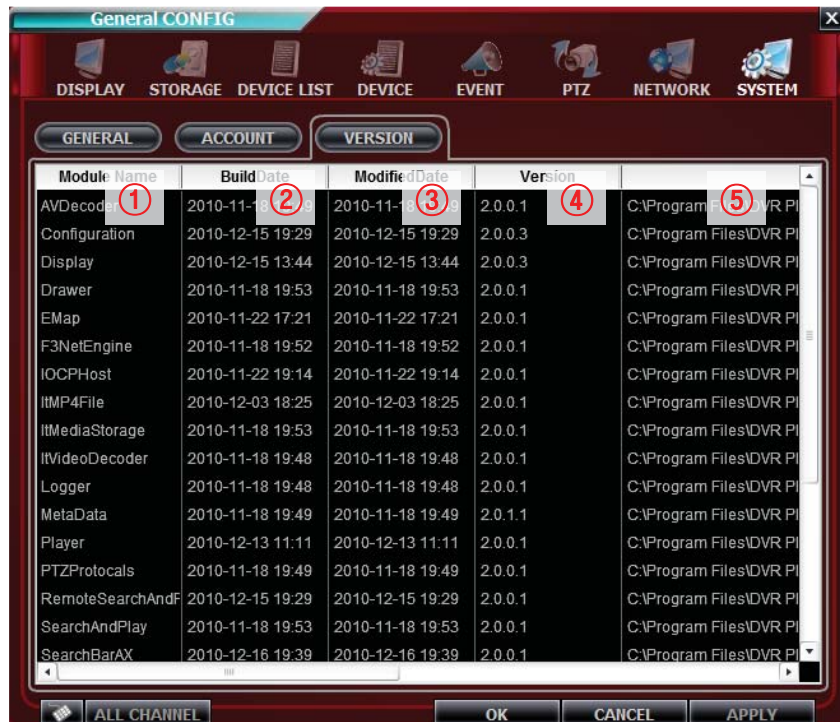
PASS(RE)

⑥ ADD MODIFY REMOVE

ALL CHANNEL OK CANCEL APPLY

- ① Use Auto Login: Select this option to automatically log in when standalone client is run.
- ② Use Auto Logout: Select to automatically log out if there has been no activity for several minutes (Select the desired time on the right)
- ③ List of registered accounts
- ④ Local Policy: Select the local functions that the selected account can access
- ⑤ Account Input Form: Input the ID and Password for an existing account or a new account
- ⑥ Button group for account Add/ Modify/ Remove functions

System Configuration (Version Tab)



- ① Module Name: Name of the engine used by standalone client
- ② Build Date: Date that the engine was created
- ③ Modified Date: Date that the engine was modified
- ④ Version: Engine version
- ⑤ Path: Path to the directory that the engine was installed



5. Standalone Client

5. Standalone Client Function Manual

Standalone Client Function Manual

This chapter explains the functions of standalone client software.



Main GUI Feature

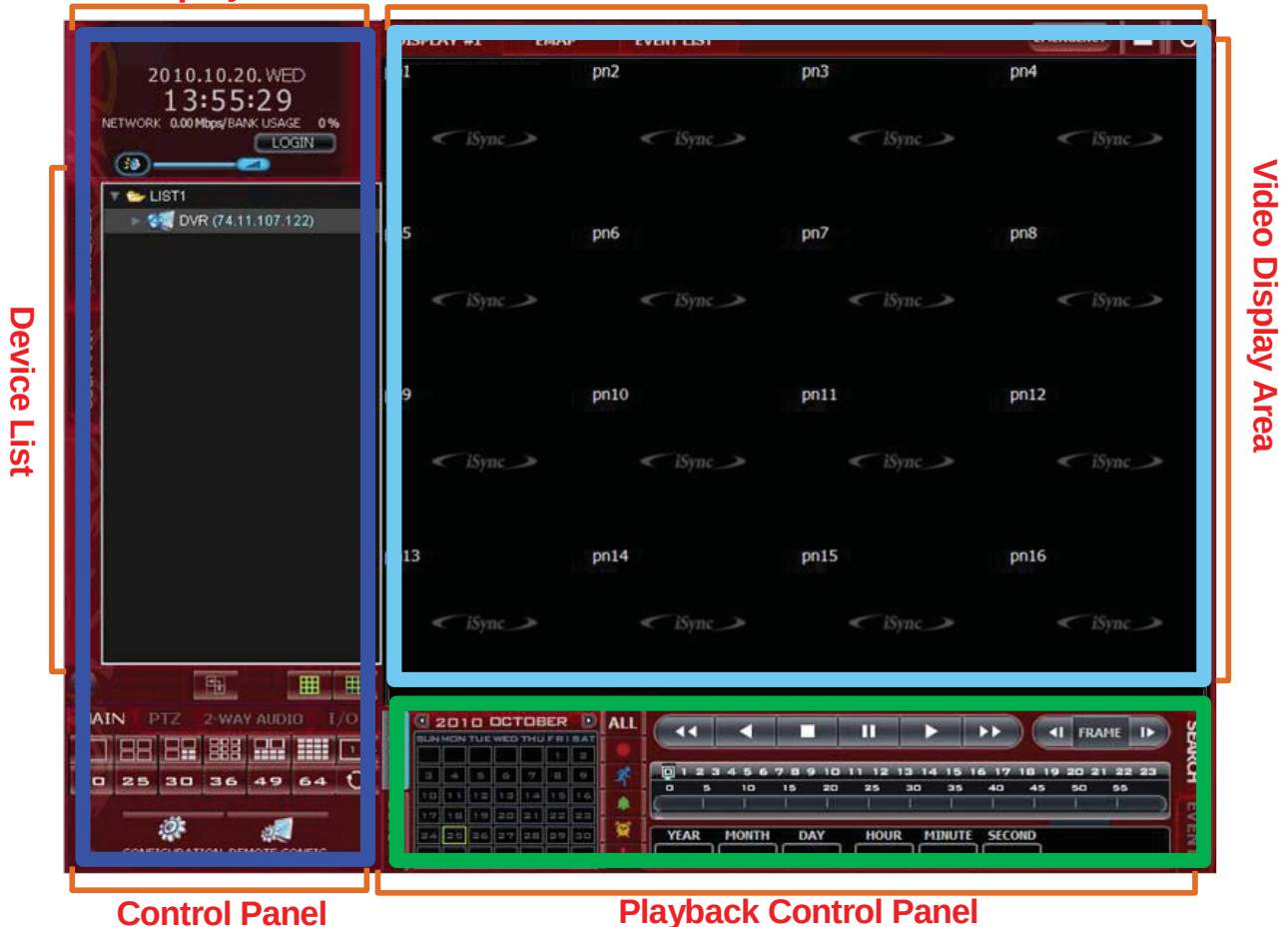
Standalone client's GUI has the following feature.

※ Main GUI features may be different for each client package.

Essential Info

Multi-Tab Area

Display Area



Main GUI Feature

- ① **Main Menu Frame** of DVR Platform
 - Info Display: Logo / Time & Date / Net. Bandwidth Info / HDD Usage / Login
 - Device List: Server Name / Address / Connection Status
 - Main Control Panel: Display Ch. Type / PTZ Control / Audio / I/O
- ② **Display Window** of DVR Platform
 - Video Display Area: 1 ~ 64 Ch.
 - Multi-Main View / E-Map / Event List / Emergency Rec / Toggle View / Exit
- ③ **Data Control Panel** of DVR Platform
 - Local Recording & Search / Remote Search / Event Log

Information Panel

Information Panel: Displays the basic status of the program.



- ① Displays the current date
- ② Displays the current time
- ③ Displays the current network usage and HDD usage (When there is no space in created banks, the program will overwrite in order of oldest banks first. If "Overwrite" is not selected in the configuration, the program does not overwrite when banks are full)
- ④ Login / Logout Button: Displays the account ID of the user currently logged in
- ⑤ Control the volume

Menu Display Bar

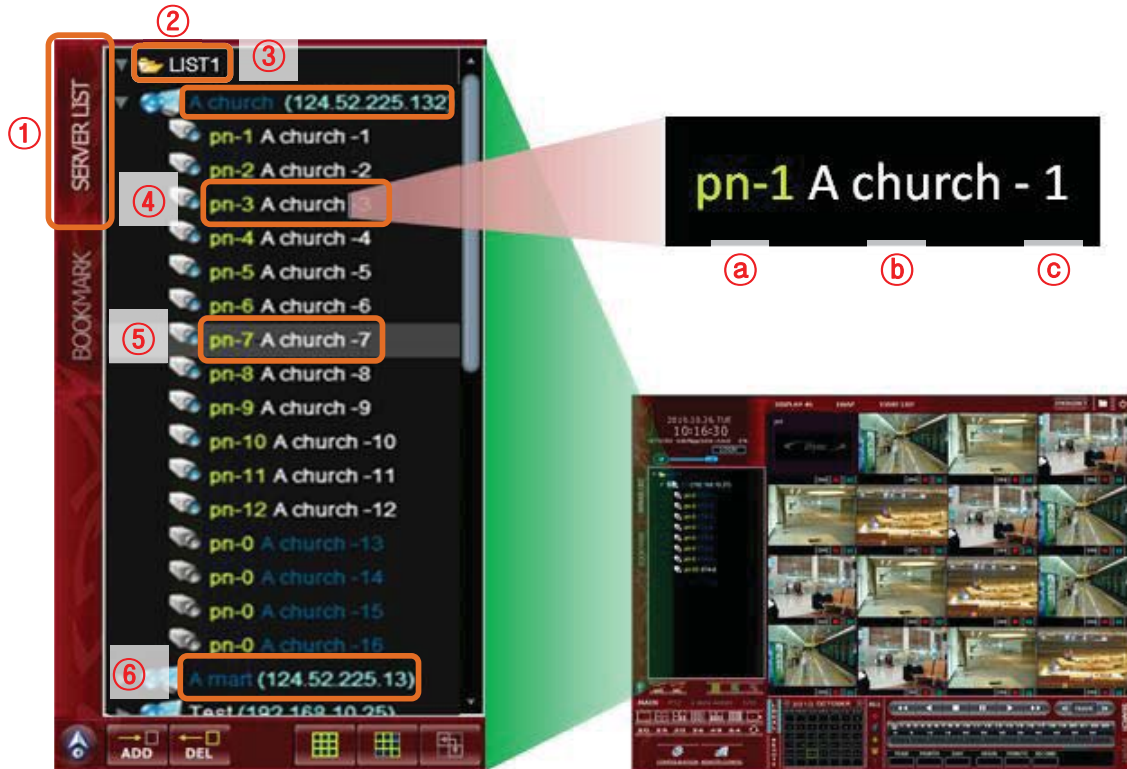
There're tabs for video display, e-map and event list and some function buttons.



- ① Click tab to switch between display windows #1, E-Map, and Event list
- ② Functions for buttons
 -  Emergency Rec button: start recording for all the connected video channels
 -  Full Screen button: Click to toggle to the full-screen mode
 -  Power button: Click to close the program

Server/ Device List

It displays the list of currently registered devices in the standalone client.



- ① Select 'Server List' Tab
- ② The upper-most item in the device list
 - ③ Server: Displays the name and IP address of a registered server
- ④ Camera: A camera belongs to a server
 - ① Panel number
 - ※ The panel number will be displayed to be '0' when the panel is not assigned to the display area.
 - ② Name of the currently displayed video channel
 - ③ Camera number
- ⑤ The item selected from the device list by the user
- ⑥ Disconnected Server: The color of Server Icon will be grey

Bookmark

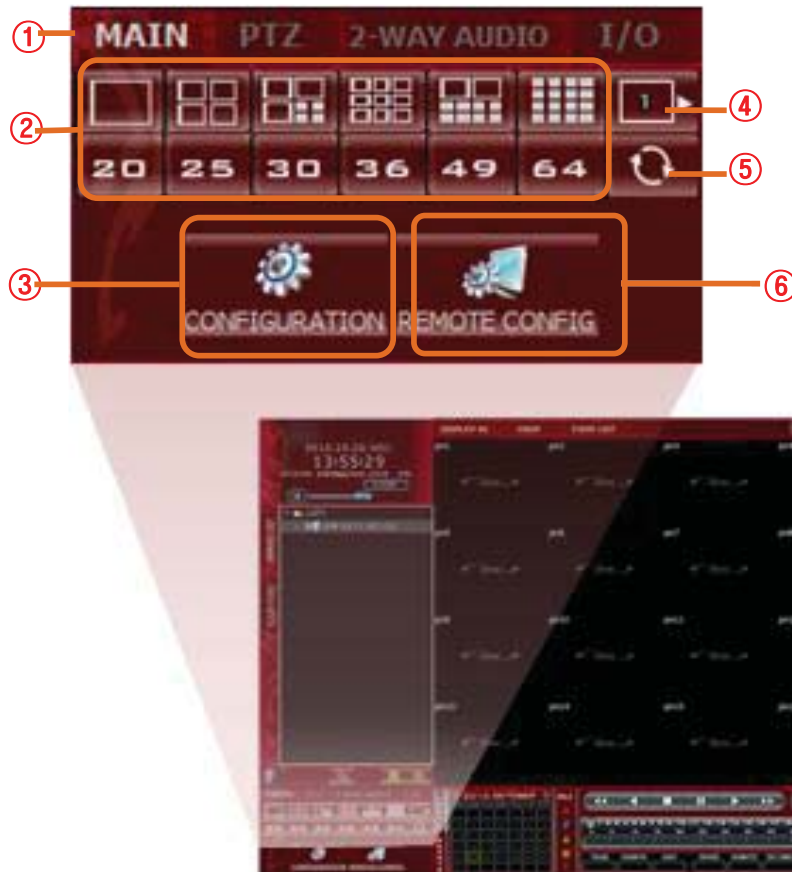
It displays the list of currently registered bookmarks.



- ① Select the bookmark tab
- ② The name of the bookmark group
 - ※ Configure at the menu of Configuration>Device>Bookmark
- ③ Camera in bookmark: Displays the panel number and camera number of the currently displayed video.
 - ④ Panel number
 - ※ The panel number will be displayed to be '0' when the panel is not assigned to the display area.
 - ⑤ Name of the currently displayed video channel
 - ⑥ Camera number

Control Panel

Buttons for controlling standalone client are located in the Control Panel

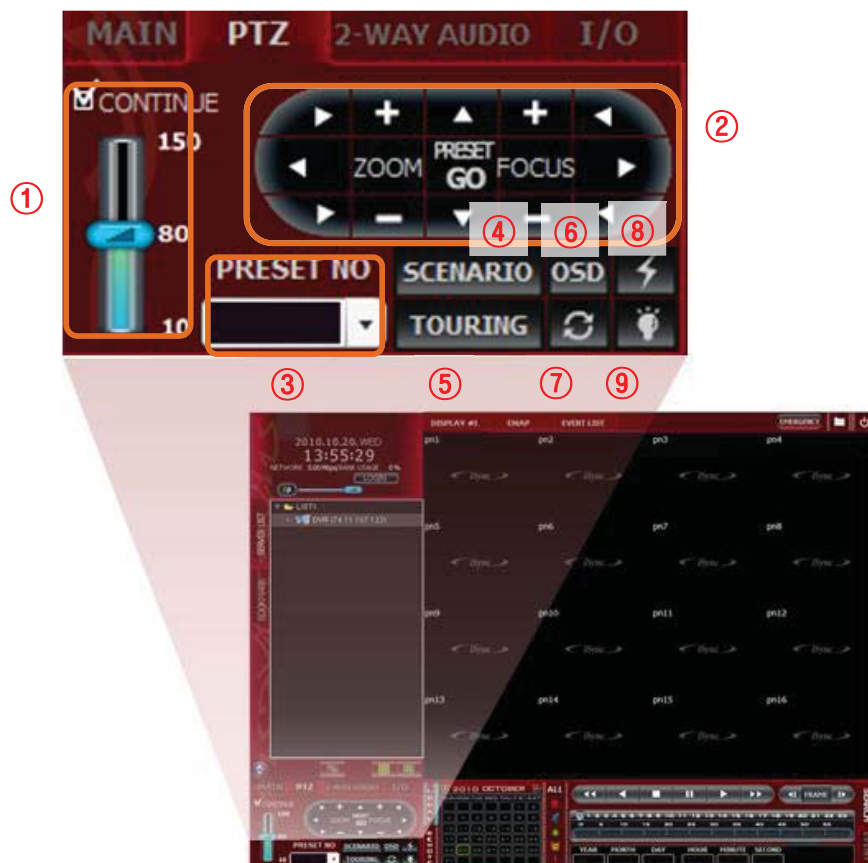


- ① Click tab to switch between General Control Panel / PTZ Control Panel / Audio Control Panel
- ② Click to select the desired split display mode
- ③ Click to enter Local configurations
- ④ Click to enter Remote configurations
- ⑤ Click to display the next channels in current split display mode
- ⑥ Click to toggle Auto-Switching: When toggled on, the video channels in display area keep on rotating in order

PTZ Control Panel

Panel For *PTZ cameras connected to standalone client.

- ※ PTZ(Pan/Tilt/Zoom): Horizontal movement / vertical movement / zoom in or out



- ① Continuous/ Non-continuous mode: PTZ Speed control
 - ※ Continuous/ Non-Continuous mode
 - Continuous mode: When a PTZ command button is clicked on, the camera will start operating. The camera will stop when the mouse button is released.
 - Non-continuous mode: When a PTZ command button is clicked, the camera will start operating and stop after the configured delay time (unit: millisecond: ms = 0.001 seconds)
Speed control range (0.01sec~0.15sec)
- ② Click to control camera's up/down/left/right movements, and

zoom/focus and selected preset Act

- ③ Select preset and touring number.
 - ※ Use “Configuration>PTZ>Preset Menu”
- ④ Click to turn on/off scenario
- ⑤ Click to turn on/off touring mode
- ⑥ Click to turn on/off camera OSD
- ⑦ Click to turn on/off camera auto-pan function
- ⑧ Click to control camera's power
- ⑨ Click to control camera's light source

2-Way Audio Control Panel

- ※ 2-Way Audio: 1-Way Audio is when DVR is sending audio to a standalone client. 2-Way Audio is when audio is sent from standalone client to the DVR, and the DVR broadcasts the audio.



- ① Audio broadcast volume control
- ② MIC(Click to enable audio broadcast)
- ③ MIC Button Enable: When trouble or problem is detected in a location that is being monitored by standalone client, click the channel that is showing the location, and click the MIC button. Then speak through the MIC, and the audio will be sent to the DVR and will be broadcast through the speaker installed in the location.

I/O control Panel

The output control button allows the user to manually control the output of the connected device. The output is connected to an I/O Relay Box (IRB-02), which then sends pulse signals to external devices such as parking gates which require pulse signals to operate.

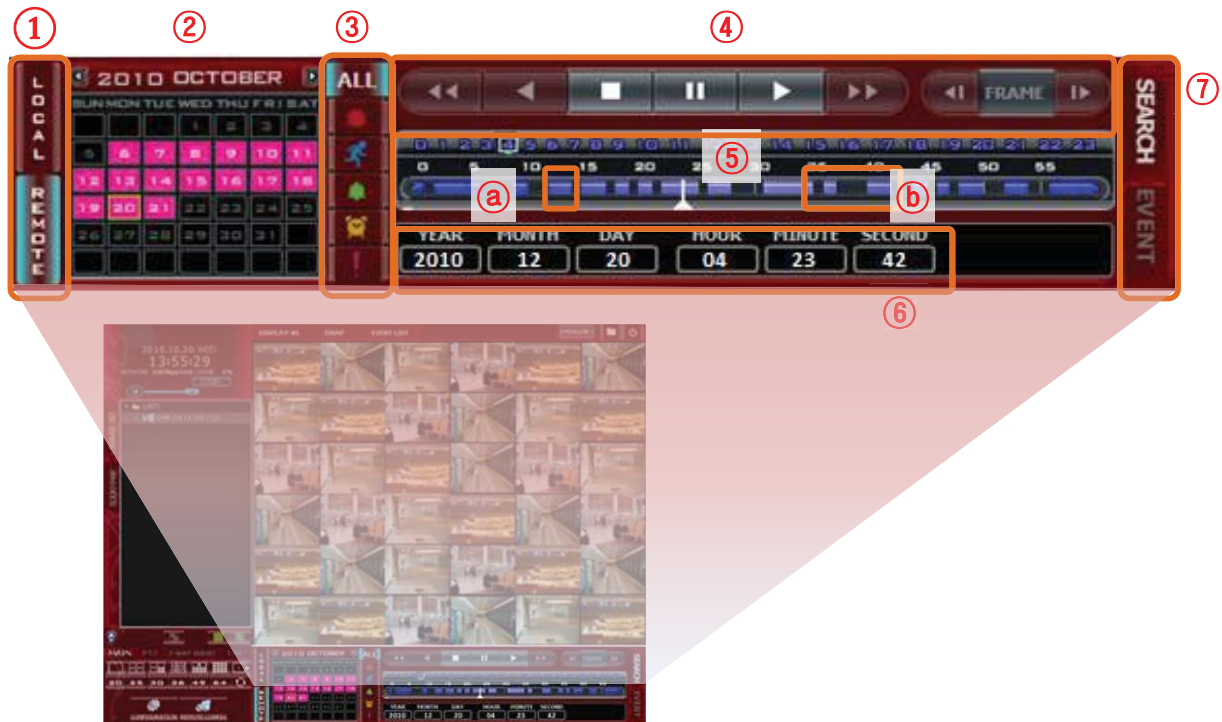


① Click to manually change the digital output state of the selected channel. Click to toggle the output state to ON, and click again to toggle the output state to OFF.

※ This button controls the on/off output to the DVR set side.
Ex) On/Off to the dry-type of alarm devices.

Playback Control Panel

Search & Playback Control Panel.

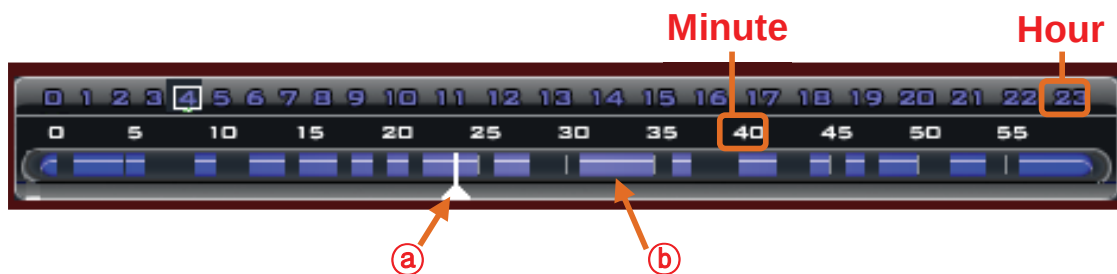


- ① Playback Mode Button: Select Playback mode between Local & Remote
- ② Calendar: Select a day for playback
- ③ Event Filter Button: Select an Event Filter

ALL	ALL		Recording		Motion Detection
	Sensor		Schedule		Reserved(Other Defined Events)
- ④ Playback Command Button: Select Playback Control commands

Playback Command Buttons					
		Move to previous frame			Move to next frame
		Rev Playback with Speed Control			Playback with Speed Control
		Playback Backward			Stop (To Live Mode)
		Pause			Play

- ① Time Bar : Select an Hour(0~23)/ Minute for Playback(0~55)



- ①
- ① Current playback point
 - ② Region where recorded video data exists

- ② User Time Input Area : Input time directly for Playback



- ③ A tab to switch between calendar search panel and event search panel of the recorded data

Event List Panel

This panel displays event lists in real time.

①

FILTER EVENT SYSTEM					SEARCH EVENT
SERVER/CAMERA	PANEL	TIME	TYPE	DESCRIPTION	
LMF/LMF-1	1	2009-11-12 10:28:46	SYSTEM	CONNNECT	
LMF/LMF-15	15	2009-11-12 10:28:43	SYSTEM	CONNNECT	
LMF/LMF-②	③	2009-11-④ 10:28:43	SYS ⑤	CONNNECT ⑥	
LMF/LMF-14	14	2009-11-12 10:28:43	SYSTEM	CONNNECT	
LMF/LMF-10	10	2009-11-12 10:28:43	SYSTEM	CONNNECT	



- ④ Filter: Select event type for real-time display
- ⑤ Server/ Camera: Camera and server name of the event that has occurred.
- ⑥ Panel: Panel number of the event that has occurred
- ⑦ Time: Time when the event occurred
- ⑧ Type: Type of the event that has occurred
- ⑨ Description: Additional information about the event that has occurred

Display

Region for Displaying Surveillance or Playback Video



- ① On the top-left corner, the panel number is displayed.
When a camera is added to the panel, the camera name is displayed there. In the middle, the current status of the panel is displayed.
 - ① Panel Number
 - ② Surveillance/playback name
 - ③ Camera number → (Refer to 'Device list')

※ ②, ③ can be configured with
"Configuration>Device>General>Device Name" menu
- ② Additional information and status indicators

※ The detailed information will be explained in the following page.

Floating Bar

Floating Bar with indicators and command buttons.

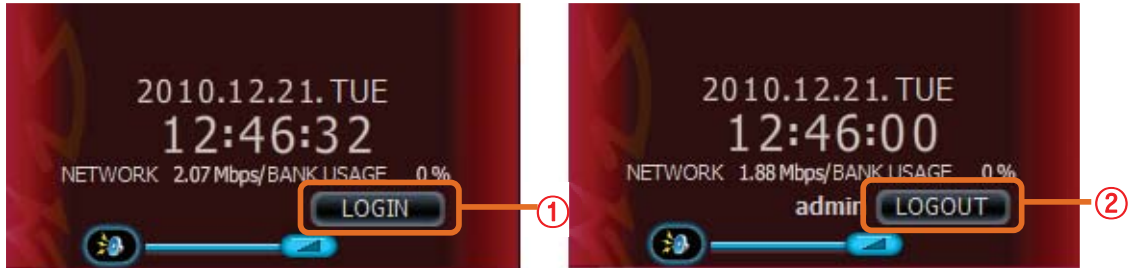


- ① Indicator for Continuous Recording
- ② Indicator for MD Recording
- ③ Indicator for Sensor Recording
- ④ Indicator for Schedule Recording
- ⑤ Indicator for *Digital Output
 - When digital output is triggered by motion detection, or sensor, etc., the state (on/off) of digital output is shown by this indicator.
- ⑥ Command button for connecting servers [On/Off]
- ⑦ Command button for *continuous recording [On/Off]
 - Press this button to start or stop continuous recording. The blinking red icon will indicate that the channel is being recorded. If there is no blinking icon, it means that the channel is not being recorded.
- ⑧ Command button for displaying the device information

Using DVR Platform CMS

Login Process

Default Administrator Account



✧ Default account Info
ID: admin
Password: admin

- ① Login: Click to open login window
- ② Logout: Click to logout the current account



③

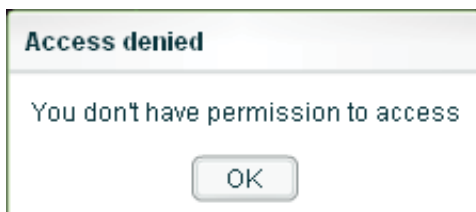


④



⑤

- ③ Login window
- ④ Login Fail 1(Wrong password error)
- ⑤ Login Fail 2 (Unregistered ID error)



⑥

- ⑥ Access Denied: This error occurs when the user is not logged-in or tries a function that the user does not have access to.

- ※ Resolution: Login again with a right login account or login in with an account which has each relevant access right to use a command.
- ※ Auto Login: Configuration>System>Account menu provides Automatic Login function which enables standalone client can run without login steps with the previous login status.

Assigning & Moving Server/Device List

- ① Assigning: Assigning by selecting a Video Processing Server or an IP Device (IP Camera) for surveillance from the left Server List and moving the list to the right side Video Surveillance area by mouse drag & drop
- ② Channel Moving/ Swapping: It moves ready-assigned video channels to other panels.
- ③ Mouse Drag & drop: It swaps between two video channels when the target channel to move is assigned a video already

※ Assigning Server/Device: Under the menu, “Configuration> Device List; Video devices can be added, and after that video channels can be assigned to the video Surveillance Area and be connected.”

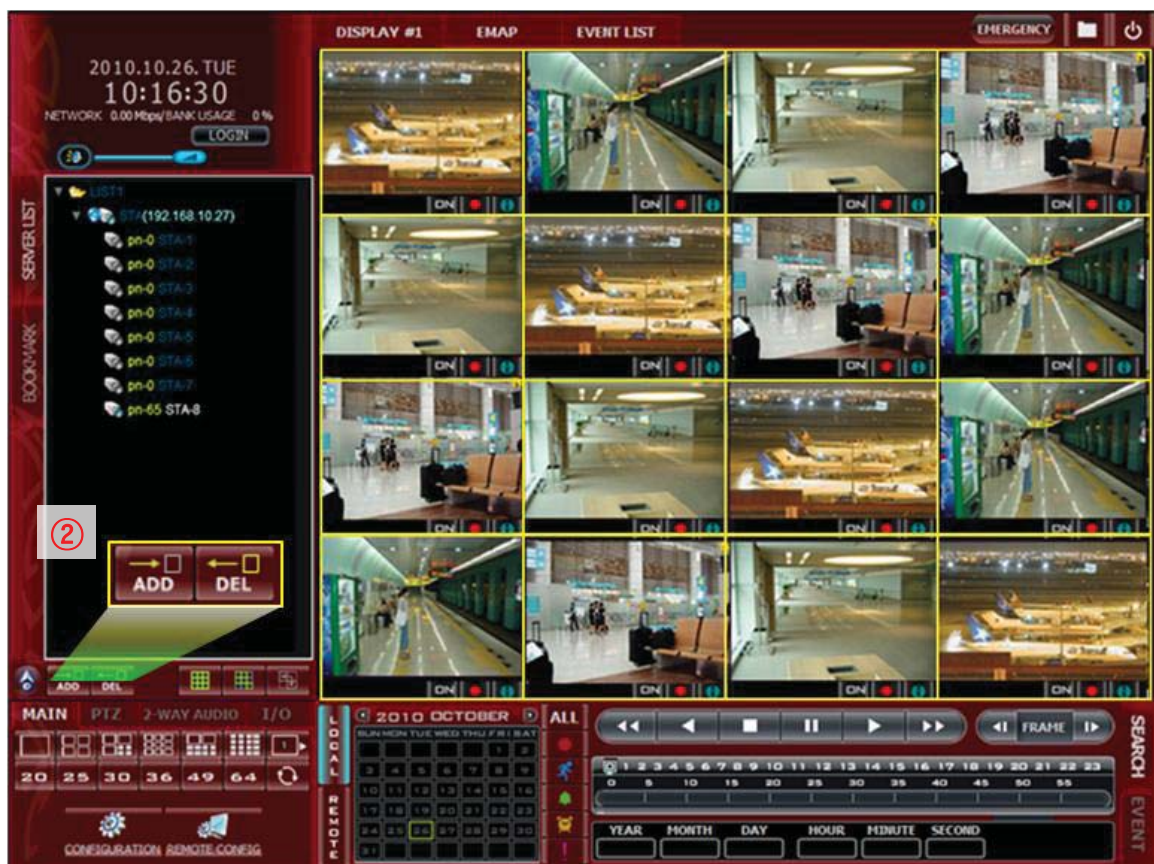


Disconnecting / Removing Assigned Channels

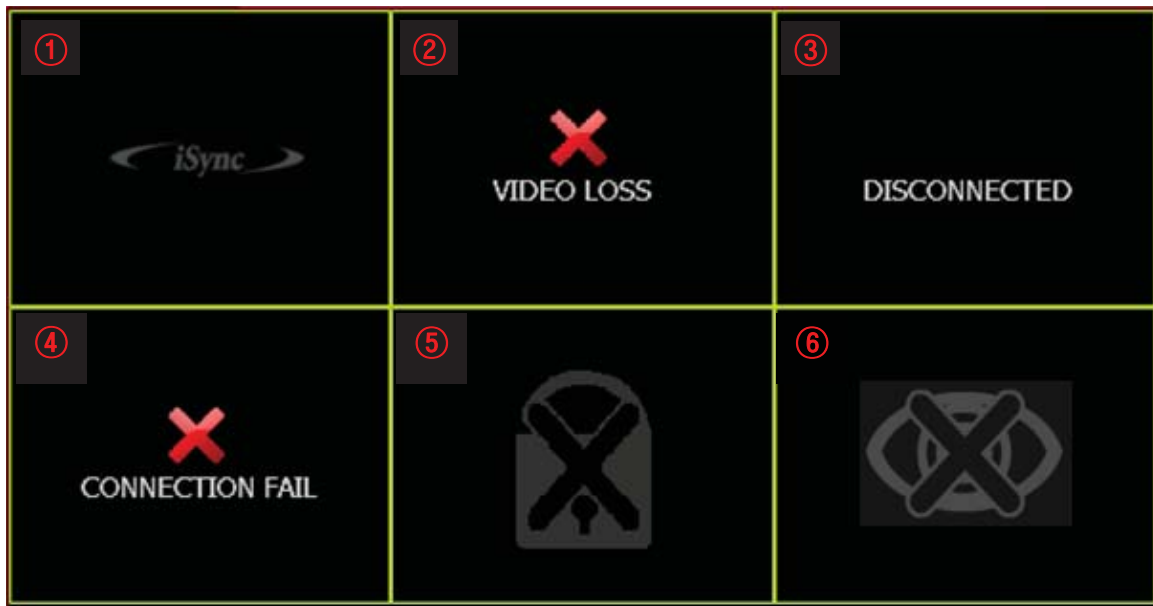
Disconnecting / Removing assigned channels on the Video Display Area.



- ① Disconnect a video channel Server by clicking the Server Connection On/Off command button



- ② Remove a video channel with 'Delete Key' or drag and drop a channel to the [Server List] while the target channel is selected Connection Fail

Connection Fail of the registered video channels

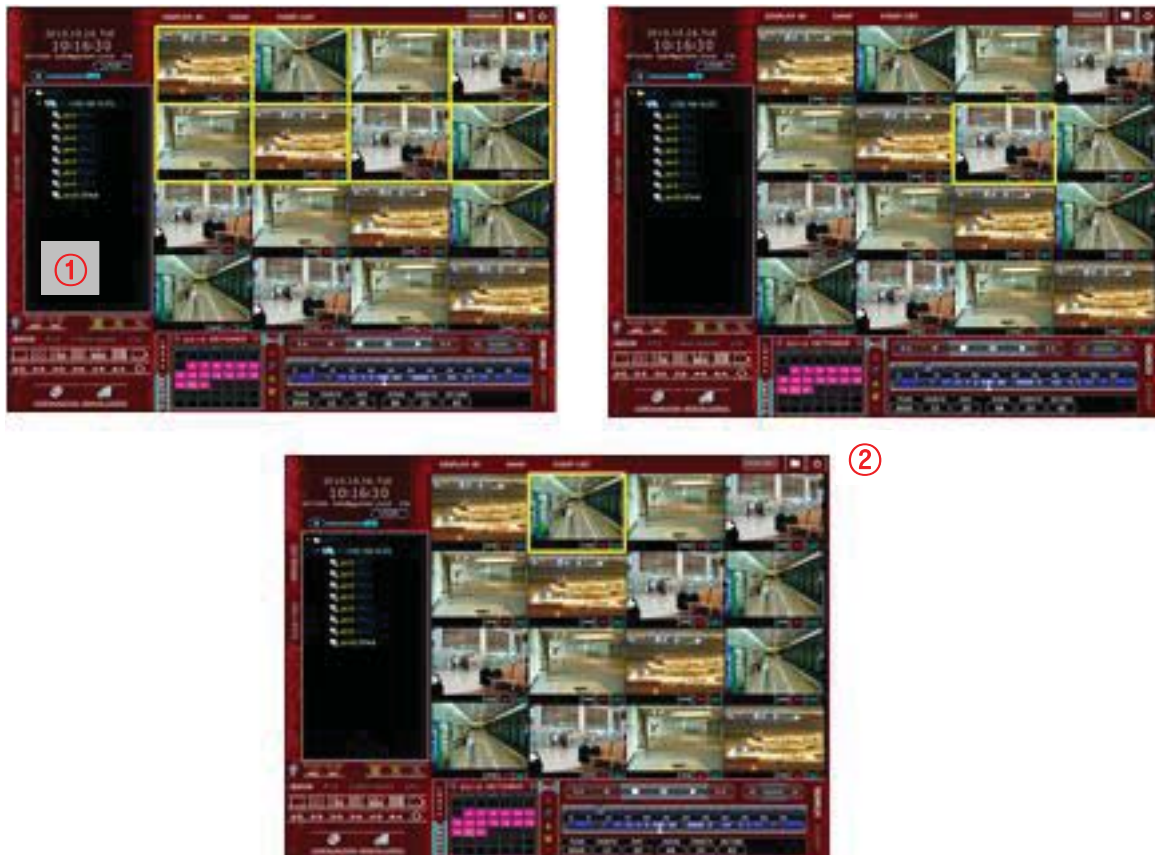
- ① “iSync” Normal Windows prior to any connection
- ② “Video Loss” message shown when the channel is in video loss state
 - ※ Check Point for this case as follows:
Check Video Cable between camera and DVR
ID and password configured to “Device List” of the configuration
- ③ “Disconnected” message shown when video channel is disconnected from CMS/Client/DVR Setting
- ④ “Connection Fail” message is shown when server connection fails.
 - ※ Check Point for this case: Check network status between server and client.
- ⑤ Message shown when user password is not correct or permission is denied
- ⑥ Message shown when video streaming is disabled for corresponding channel

Controlling selected surveillance video channels



- ① Selected: When selecting a video surveillance channel, the border of the channel changes to be green
- ② Select All: Select All video channels in the video surveillance area.
- ③ Deselect All: Deselect all selected channels by clicking “Select All/Deselect All” button or by clicking an un-assigned video channel
- ④ Multi Select: Select multiple video channels by enabling “Multi Select” button or by selecting video channels with pressing CTRL Key
- ⑤ Controlling selected channels: The Playback function is available to selected video channels. The functions like PTZ control, two-way audio are available only to one selected channel.

Enhanced Function for Server List/Surveillance Area



- ① Highlighting Video channels by mouse clicking a server list in the Server List panel. All highlighted video channels can be deleted just after clicking a server list.
- ② Highlighting a server list by mouse clicking a video channel in the video display area. With this function, right clicking “Remote Search” button for remote search can be run easily.

OSC(On Screen Command) Function



- ① OSC OFF: OSC Function is off. Change OSC function on by clicking the button
- ② PTZ OSC: In use of the PTZ OSC Function. Move a PTZ camera by mouse clicking a point of a video channel. Control Zoom In/Out by mouse clicking [+], [-] buttons
- ③ Playback OSC: In use of the Playback OSC function. With the function, control playback on a server directly

E-MAP Configuration

Video can also be viewed on E-map for a more effective and realistic surveillance.



- ① Select E-MAP tab (Click)
- ② E-MAP select PIC File you want to display on screen (Refer to 'Menu indicator bar')
- ③ Click EDIT on bottom right and then OK
- ④ Drag and Drop the device of your choice over the Picture on the location of your choice
- ⑤ When deleting, click "target" over the device on the picture and click on delete
- ⑥ When editing is finished, click on save.
 - ※ If you do not save, the settings will not be applied.
 - Clicking on the target will display the image on screen

Event List/ Real-time Event View

Real-time monitoring of events that are occurring is possible by selecting the type of events to see. Pop-up view of the channel is displayed when an event occurs.



- ① Select type
 - Event: Select which events to display in real-time event list window.
 - System: Select which system-related events to display in real-time event list window
 - ※ Even if an event type is not selected for being displayed in the real-time event list window, it will still be recorded in the database.
- ② Real-time event list: Double-click on an event for a pop-up display of the corresponding channel

Event List/ Search Event View

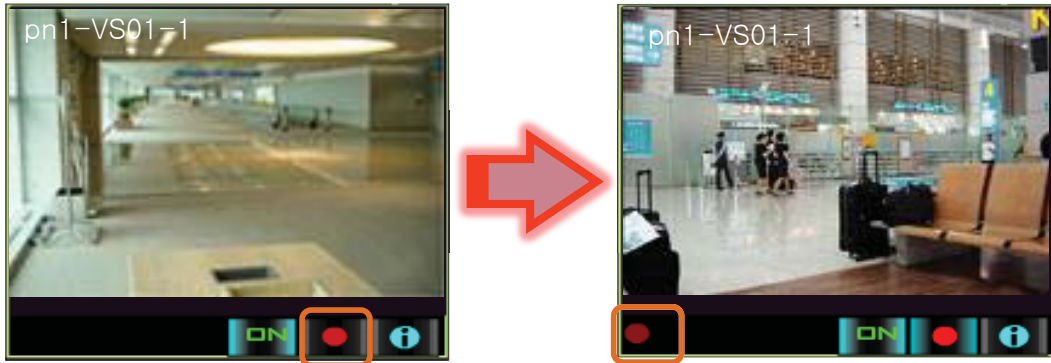
Search for events that occurred by event-type, date, time, and text. Play-back the moment of the event.



- ① **Select Type**
 - Event: Select which events to search for
 - System: Select which system-related events to search for.
 - ※ Even if an event type is not selected for being displayed in the real-time event list window, it will still be recorded in the database.
- ② **Date/Time search:** Select date or time of the event to search for.
- ③ **Text search:** Search for events that include certain texts.
- ④ **Search event list:** Double-click on an event to play back the video of the moment of the event.

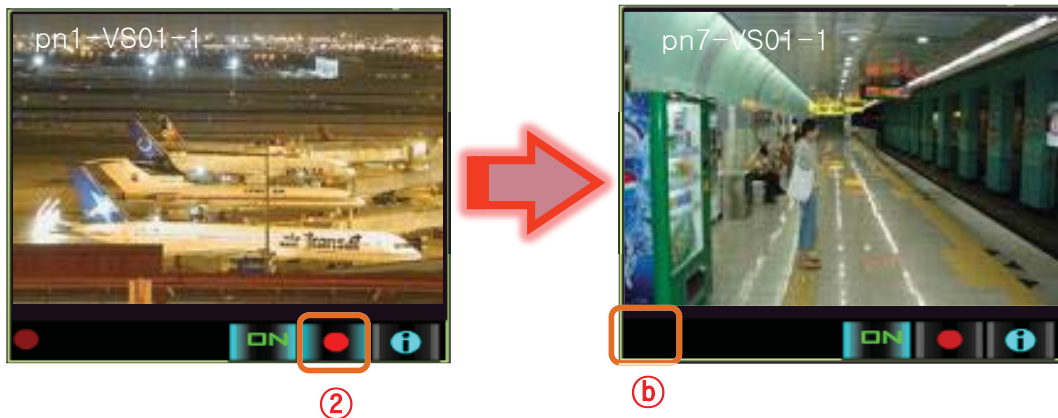
Record

Continuous Recording (On / Off)



- ① Start Recording: Click Record button to turn on Continuous Recording for the selected panel

② Recording-ON Indicator will start blinking



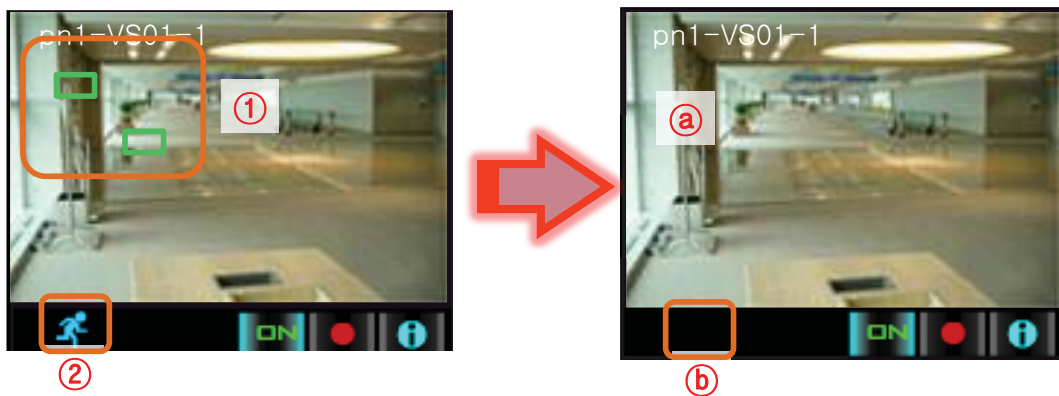
- ② Stop Recording: Click Record button again to stop recording
- ③ Recording-ON Indicator will stop blinking

※ Continuous recording has the top priority: If continuous recording button is pressed while MD(motion detection) recording is in progress, it will be converted to continuous recording.

MD(Motion Detection) Recording

Recording when MD events occur. MD Recording mode is activated after configuring MD Enable/Disable setting and MD area for each device in Configuration Window.

- ※ Configuring Motion detection can be available with the menu of “Configuration>Record>Event TIME”
- ※ Configuring duration for MD area display is available with the menu of “Configuration>Record>Event Time”. Refer to the section, “Recording Duration Configuration by Events”



- ① Green Rectangles for MD Event area
- ② MD Recording Indicator
 - Ⓐ The configuration for displaying MD Area is OFF
 - Ⓑ MD recording is OFF after MD has been detected

Emergency Recording Command Button

A Command Button for Emergency Recording



- ① Emergency Recording is off: Click to start Emergency Recording
- ② Emergency Recording is on: Click to stop Emergency Recording

Playback

For playback of the recorded video, a video channel should be assigned to a video display panel and its panel should be selected with mouse click. And then playback command can be done.

- ※ Clicking the playback button on the “Search Tab” without selecting a channel will start All Channel Playback. Playback cannot be done when a channel is not assigned to any panel.

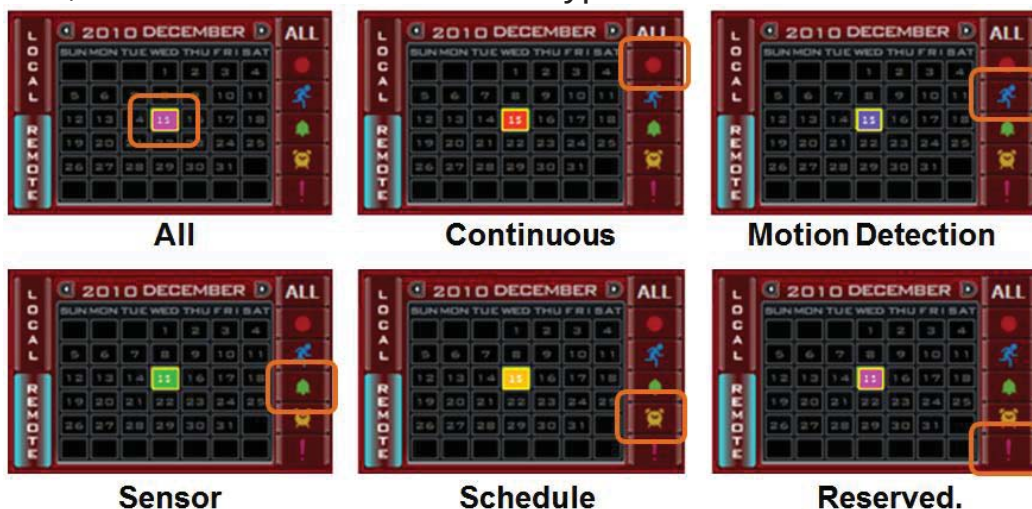
Playback Mode



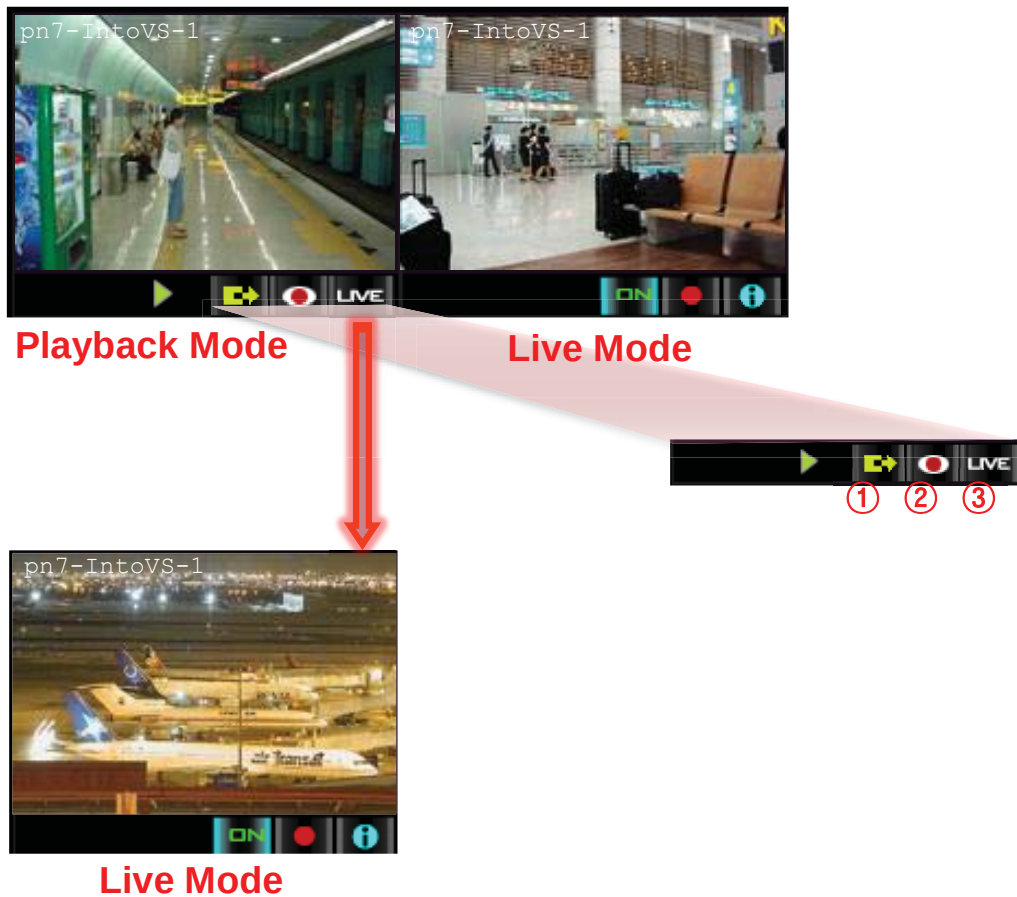
- ① A channel is assigned/ Network is disconnected/ Available for Playback
- ② A channel is assigned/ Network is connected/ Available for Playback)
- ③ A channel is NOT assigned/ Network is not connected/ Not available for Playback

Search Filter Button

Select a Search Filter Button to choose an event type to search for, and filter out all other event types.

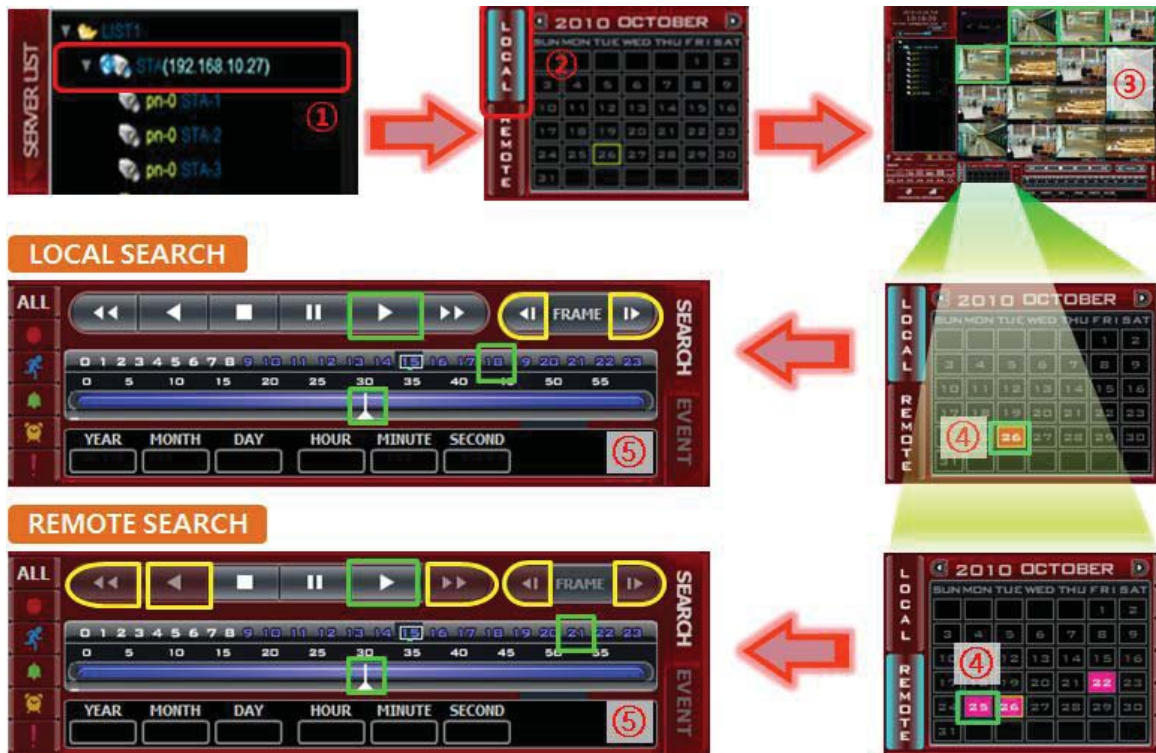


Playback mode Indicator



- ①  Run Backup Manager of the current channel
- ②  Reserved
- ③  Switch to live surveillance mode
 - Press LIVE button to convert to LIVE mode during playback.
 - When the mouse pointer is on the display area of a Channel, the playback status bar will slide up from the bottom of the display area.

Search



To execute Search

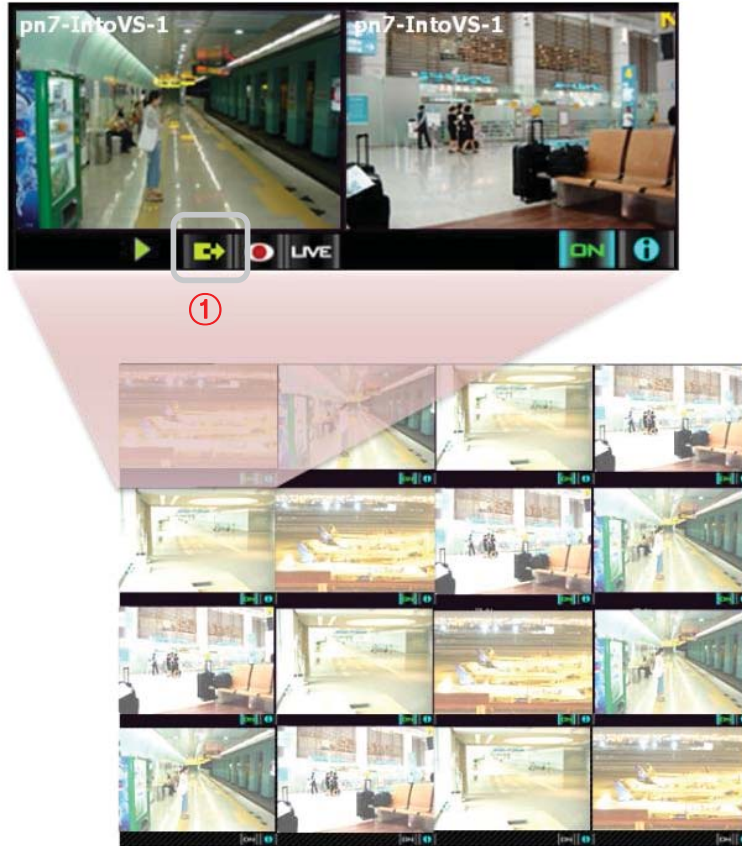
- ① Select the server to that needs to be Local searched
 - ② Click on LOCAL or REMOTE button in the Playback Control Panel
 - ③ Select desired channel number(s)
 - ④ Select the date from the calendar
 - ⑤ Select the time by adjusting Time Bar and click on Play Button.
- ※ Buttons are disabled during the “Remote Playback”.
 - ※ Buttons are disabled during the “Local Playback”.

To end Remote Search

Click on LOCAL button to return to normal search mode.

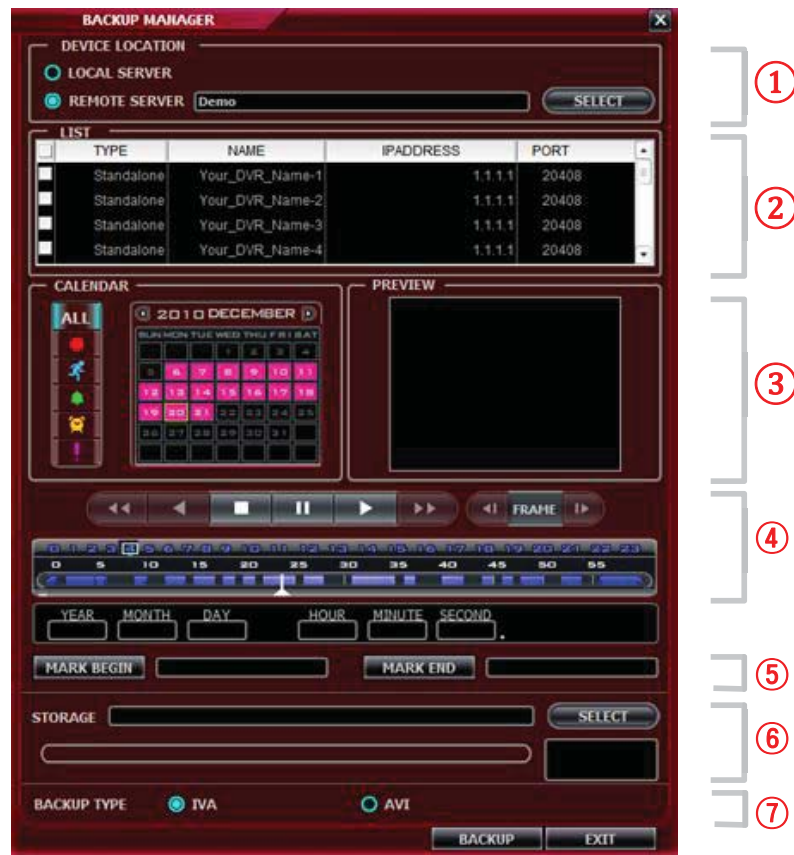
Backup

To execute Backup Manager, click 'Backup Manager Command Button' while in playback mode.



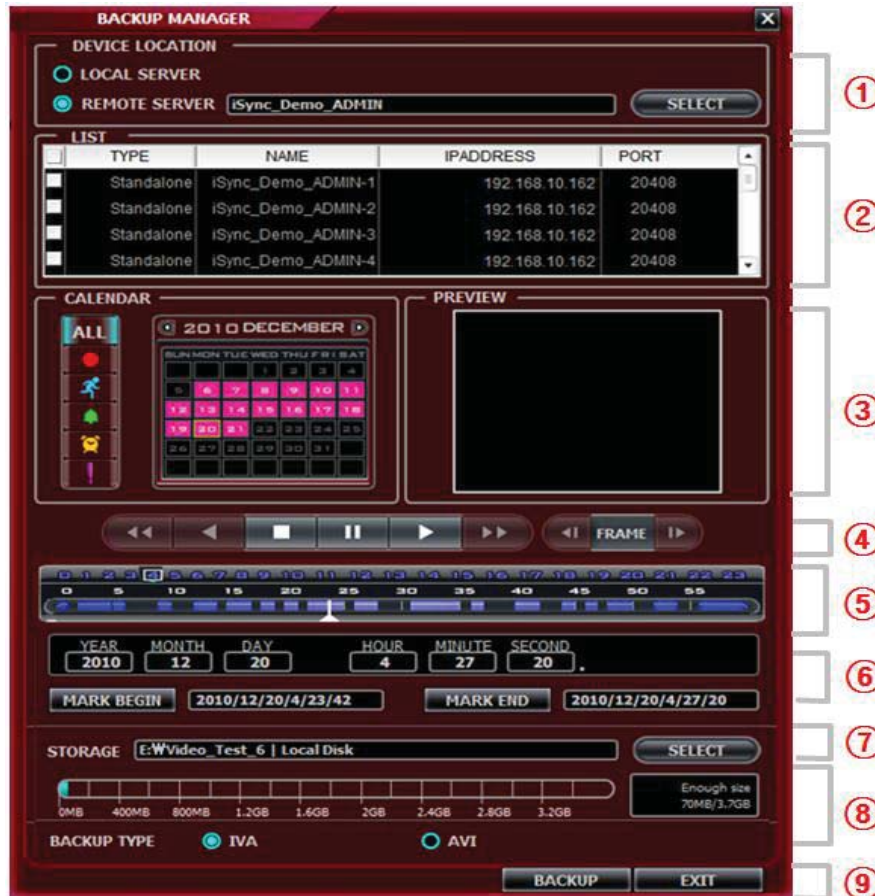
- ① Execute 'Backup Manager' by clicking Backup Manager Command Button  while in playback mode. The available buttons on the floating bar will change automatically when in playback mode.

Backup Manager



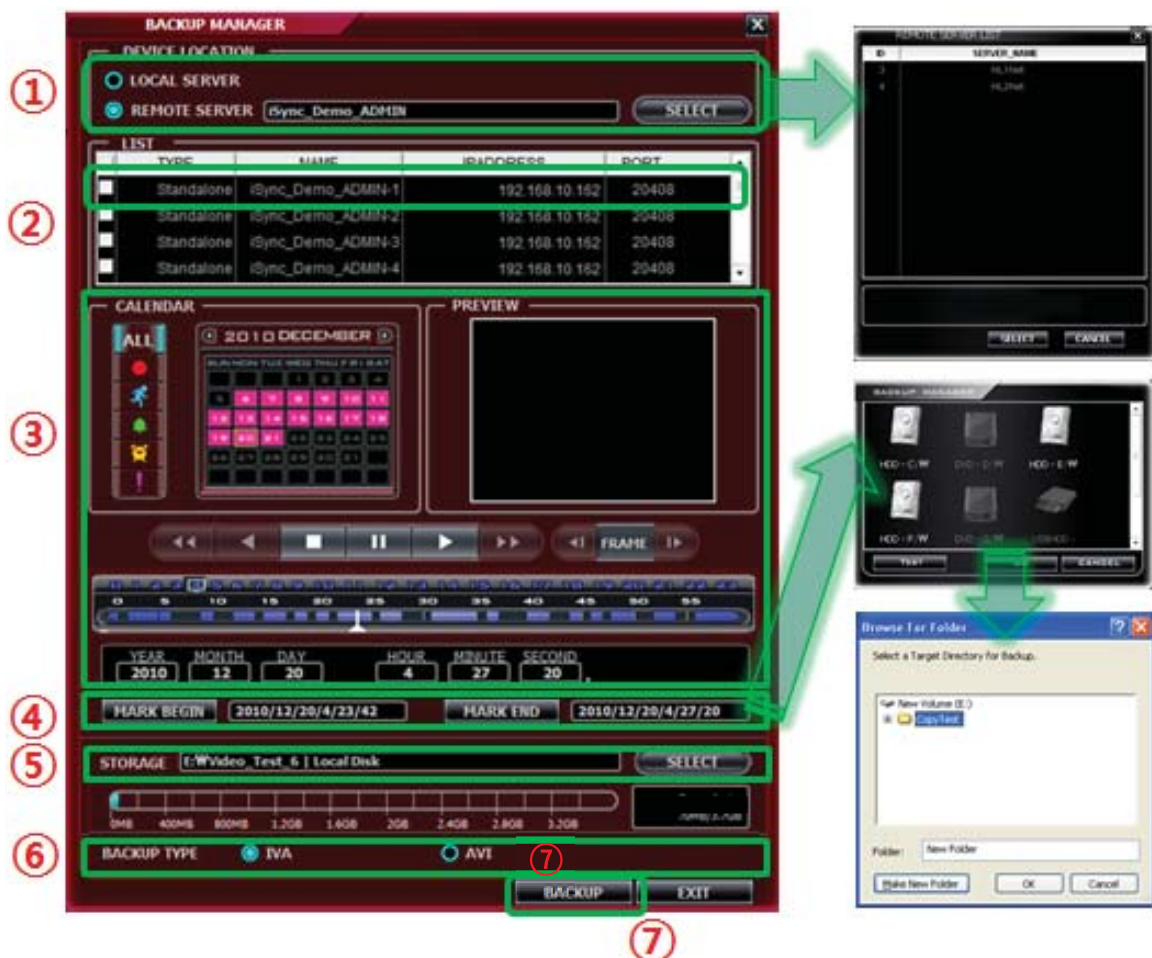
- ① Device Location
- ② Backup Storage Devices
- ③ Calendar & Preview Area
- ④ Backup Controller Command Area
- ⑤ Markup backup time block Area
- ⑥ Select a *backup repository (HDD, USB, CD-RW/ DVD-RW)
 - ※ If the storages (bank) that the standalone client designated are full, the previous data is overwritten or standalone client stops recording data. Use the backup function in order to store the recorded data in another storage device.
- ⑦ Backup Type: Backup progress reference of the following chapter

Backup Procedure



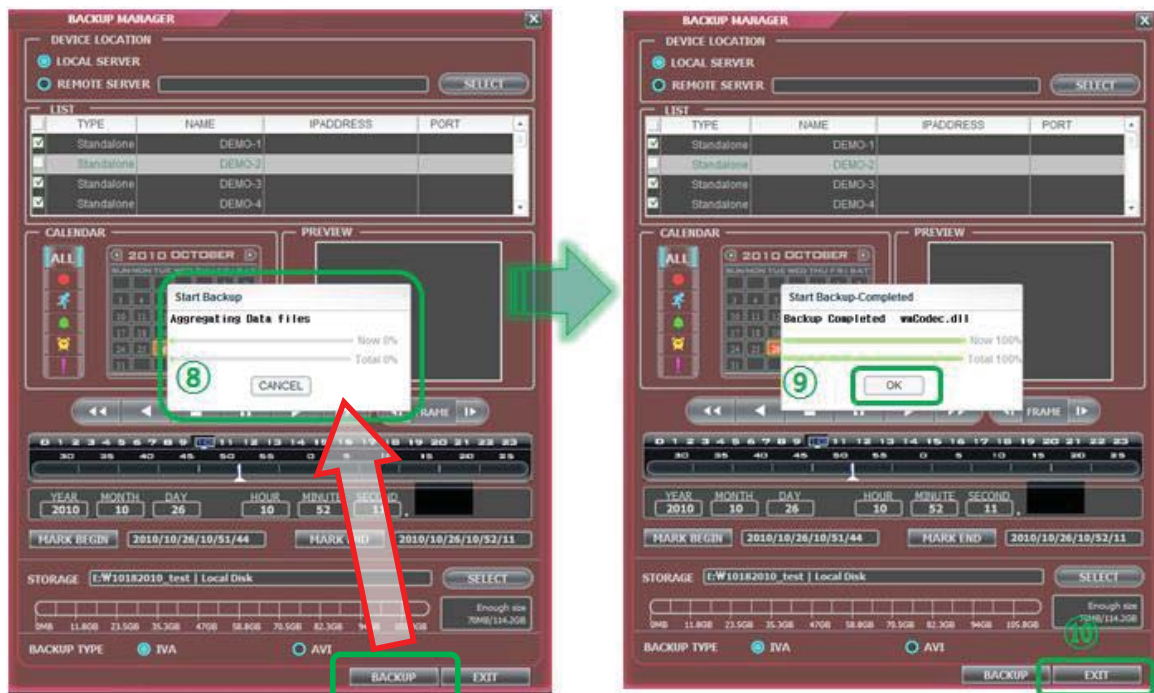
- ① Select the location of the device that contains the data to back up. In case of remote backup, select a remote server.
- ② Backup Storage Device Selection
- ③ Calendar & Preview
 - Select a date or a recorded event in the calendar
 - Preview Area
- ④ Confirm the recorded data by viewing the recorded video in the preview area using the playback panel buttons
 - ⑤ Select the point you want to back up, by clicking on the time in the search bar that shows where recorded data exist
- ⑥ To search more accurately, search by entering the exact time in the search bar
- ⑦ After selecting ②③④⑤, set Mark Begin/ End Time value for backup blocks
- ⑧ Specify a local backup directory
- ⑨ Choose the video format of the video

Backup to Storage Device on Computer



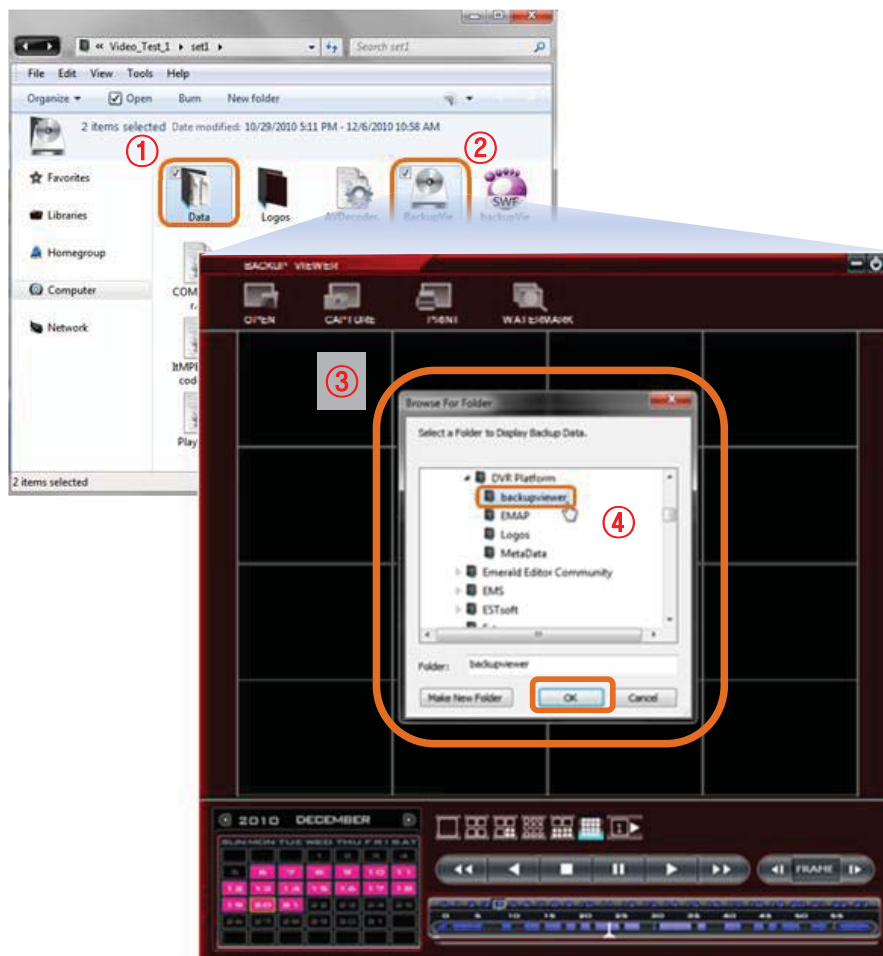
- ① Select the location of the device that contains the data to back up. In case of remote backup, select a remote server.
- ② Backup Storage Device Selection: Click [Select] button for backup devices. All available backup devices are enabled automatically.
- ③ Preview Video to mark the start and end of backup blocks
- ④ Set Mark Begin/ End Time value for backup blocks
- ⑤ Specify a local backup directory: When selecting a HDD for the backup device, the "Browse for Folder" window will pop up automatically.
- ⑥ Choose the video format of the backup file
- ⑦ Click BACKUP button to start backup

Executing Backup



- ① Backup button click to Start. The progress of backup is shown
- ② Finish backup by clicking OK button when backup is complete
- ③ Exit Backup Manager

Procedure to playback backup file



- ① When backup process is finished, the backup data will be stored in a directory named “Data” in the designated storage medium. Also, Backup Viewer program, which is used for viewing the backup data, will be automatically installed.
- ② Run Backup Viewer program by double-clicking ‘Backup Viewer’ Icon
- ③ When Backup Viewer opens, ‘Open’ dialog box will pop up automatically. The ‘Open’ dialog box is used to search for the directory with the backup files
- ④ Select the directory where the backup files were stored
- ⑤ Click ‘OK’ button for playback

Backup Viewer Window



- ① Menu Area
- ② Display Area
- ③ Calendar Panel
- ④ Display and Playback Control Panel

Main Menu and Display Area



- ① Menu Area
 - ① (a) Open: Select the directory where the IVA backup files are stored
 - ① (b) Capture: Save the current screen of the selected channel as an image file. (BMP or JPEG)
 - ① (c) Print: Print the current screen of the selected channel
 - ① (d) Watermark: Open an image file that was saved with watermark function enabled, and check to see if the image has been modified
- ② Display Area: The selected channel is played in this area
 - ② (e) Channel information
 - ② (f) The date and time of the recorded video
- ③ The button to exit Backup Viewer

Playback Control Panel



- ① **Display Control Panel:**
 - Ⓐ ~ Ⓕ 1, 4, 7, 9, 10, 16 channel split mode
 - Ⓖ Keep current split mode and switch to next channels
- ② **Calendar Panel:** The panel to check the recording days and select days to playback recording data.
 - (1) Calendar panel
 - (2) Recorded Month and Year of playback video
 - (3) Dates with recorded data are highlighted
- ③ **Playback Control Panel:**
 - (4) Decrease Reverse Playback Speed
 - (5) Reserve Playback

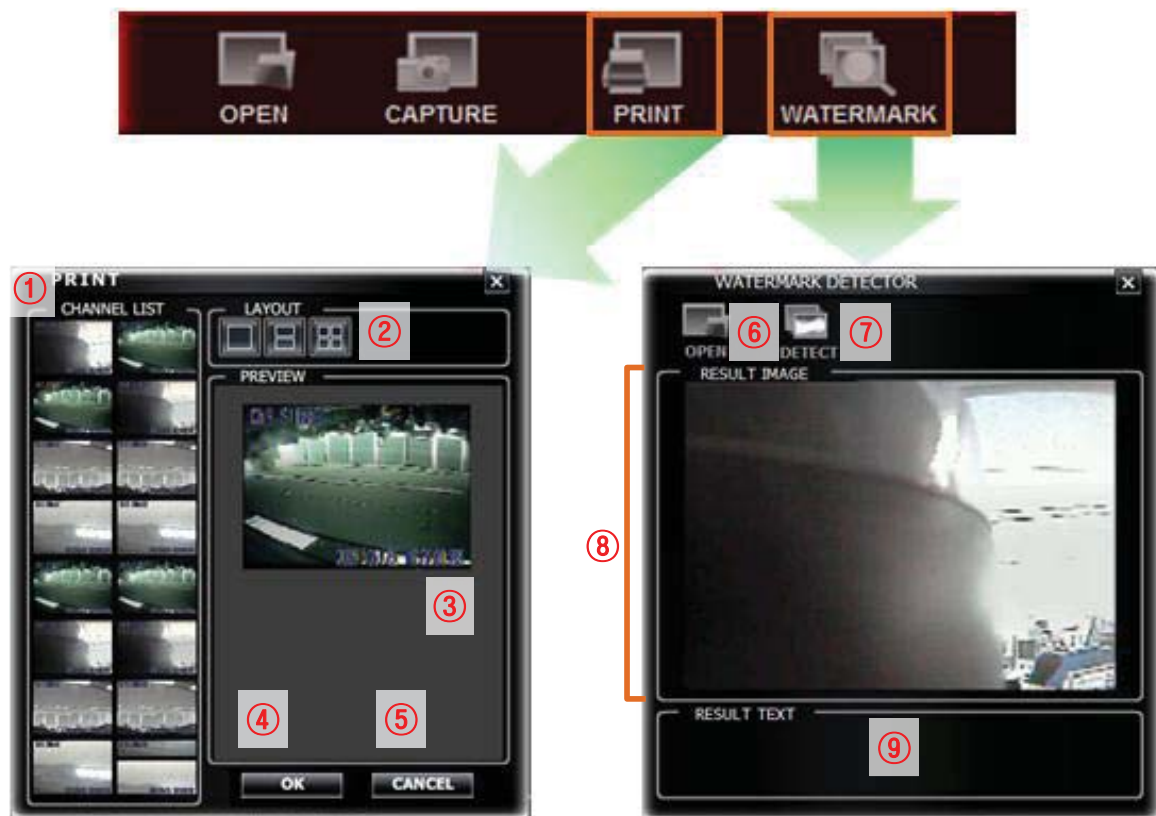
- (6) Stop Playback
- (7) Pause Playback
- (8) Playback
- (9) Increase Playback Speed
- (10) Move 1 frame backward
- (11) Move 1 frame forward
- (12) Current playback location
- (13) Backup Data time bar

Select Channel Window and Capture Window



- ① Select Channel Window
 - (1) Select Folder
 - (2) Select the channels to play back
 - (3) Displays the ID and name of the channel
 - (4) OK: Click to play back the selected channels
 - (5) Cancel: Click to close the window
- ② Capture Window : A Window to save the current video to an image file
 - (6) Preview area for the screen to be captured
 - (7) Select/De-select whether to use the watermark function
 - (8) Save: Save the selected screen as an image file
 - (9) Cancel: Close the windows without saving

Print Window and Watermark Detector Window



Print Window: A Window for printing the Current Screen of the Playback Window

- ① Channel List: List for selecting the channels to print
- ② Layout: Select the layout for printing
- ③ Preview: The images can arranged on the selected layout, and a preview of the page is displayed
- ④ Print: Click to print with the selected settings
- ⑤ Cancel: Click to close window without printing

Watermark Detector: Open an image file that was saved with watermark function, and check to see if the image has been modified.

- ⑥ Open: Open an image file
- ⑦ Detect: Check to see if the image file was modified
- ⑧ Result Image: Shows the image and result of the watermark detection
- ⑨ Result Text: Shows the result of the watermark detection

Open

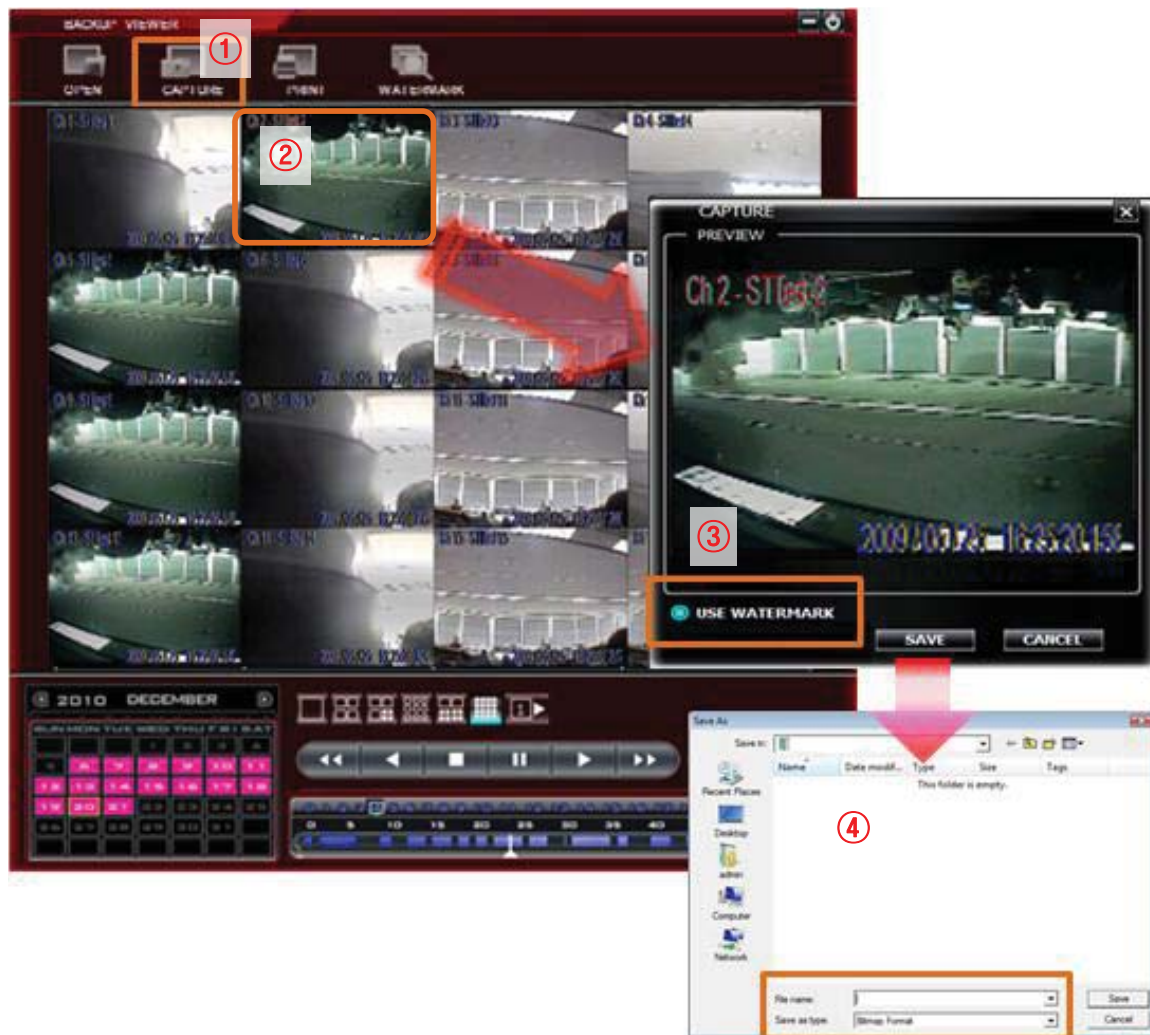


[How To Open]

Viewing a backup video with the Backup Viewer is briefly explained here

- ① Click Open button in the Backup Viewer
- ② Select the directory where the IVA backup files are stored
- ③ Select the channels to view from the channel list
- ④ Select a date with recorded data from the calendar panel
- ⑤ Split mode change and display control

Capture Still cut



[How To Capture]

After playback of the backup video, capture and save the screen

- ① Click on a channel to select it. (The name of the selected channel will change to red)
- ② Click on the Capture menu button
 - ③ Enable or disable watermark function and click on 'Save' button.
 - ④ Select a directory to save to, enter the file name, and save (Captured image format: JPEG & BMP / Size: 720 x 540)

Print



[How To Print]

- ① Click Print button
- ② Select a layout of the printing
- ③ Drag-and-drop an image from the channel list to the preview area to add. Drag-and-drop an image from the preview area to the channel list to remove
- ④ Click Print button to print

Watermark



[How To Use Watermark]

- ① Click Watermark menu button
- ② Click on Open button and open an image
- ③ Click on Detect button to check if the image has been modified
- ④ The result when the image was not modified
- ⑤ The result when the image was modified



6. WebClient User Manual

Keywords Glossary in this Chapter

Active-X Installation	148
Audio Control	153
Connecting DVR with IE	147
Display Mode	150
PTZ Control	152
Recording Setting	157
Search & Playback	154~155
Streaming Setting	156
Zoom & Resize	151

Minimal Specifications required to operate WebClient

Minimal Specifications	
CPU	P4 3.0 or higher
Memory	512 MB or higher
VGA	GeForce MS 400, Radeon 7500 or higher
	GeForce 8 series or higher
VGA Memory	64MB
MONITOR	1280X1024 recommended
OS	WINDOWS XP Service Pack 2 or higher
IE VERSION	IE 8.0 or higher
NETWORK	100 Mbps
DirectX	V7.0 or higher

Web Client Using Internet Explorer

This chapter will discuss about establishing a connection using Web Client and installation of ActiveX.

Remote Web Client using Web Browser

Enter the IP address or the DDNS server address of DVR on browser.



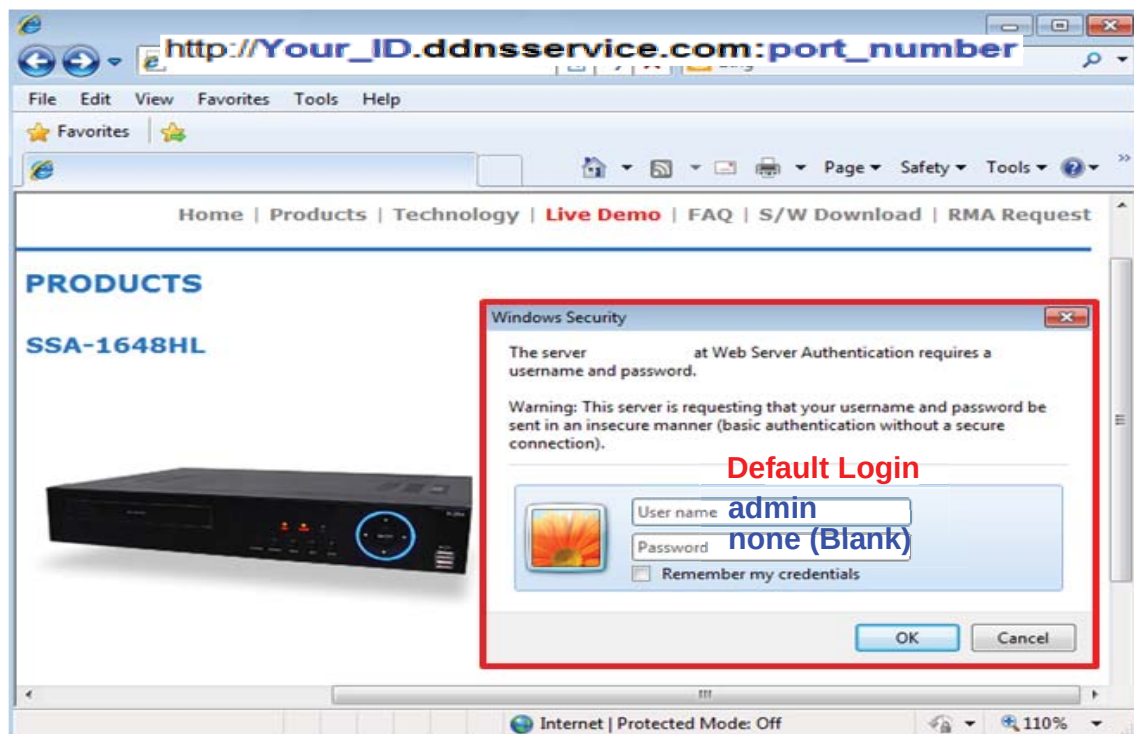
Default DDNS Server Address is “ DDNSSERVICE.COM “

http://Your_ID.ddnsservice.com:port_number

Web Client Login

When Login Window pops up, enter the correct ID/PASSWORD.

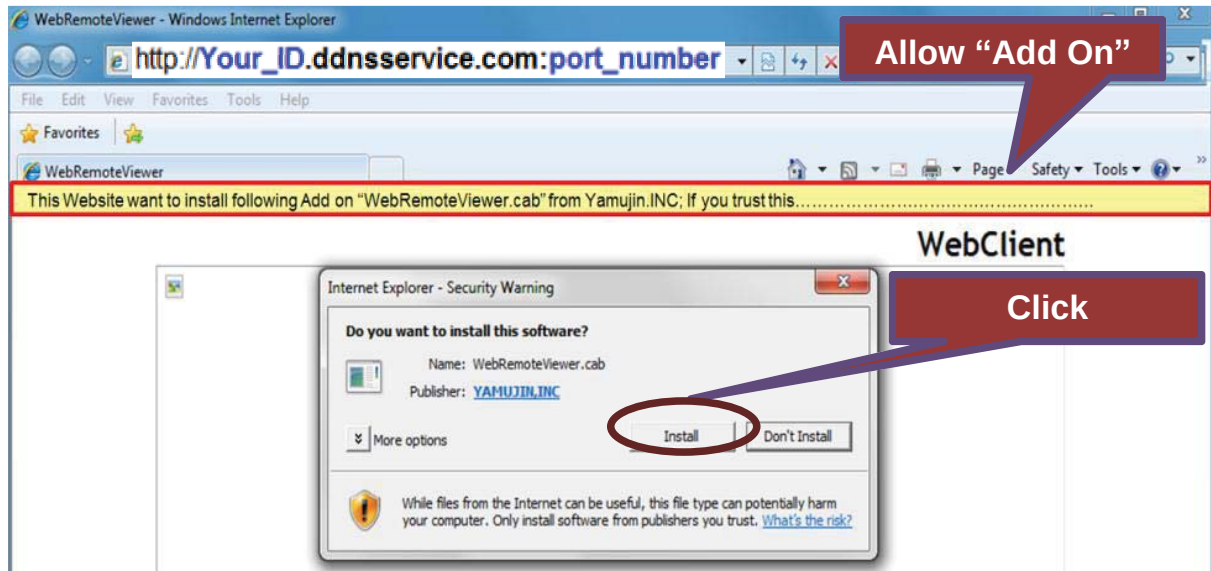
Default ID: admin & Default Password: none (Blank)



Standalone DVR Manual

ActiveX Installation

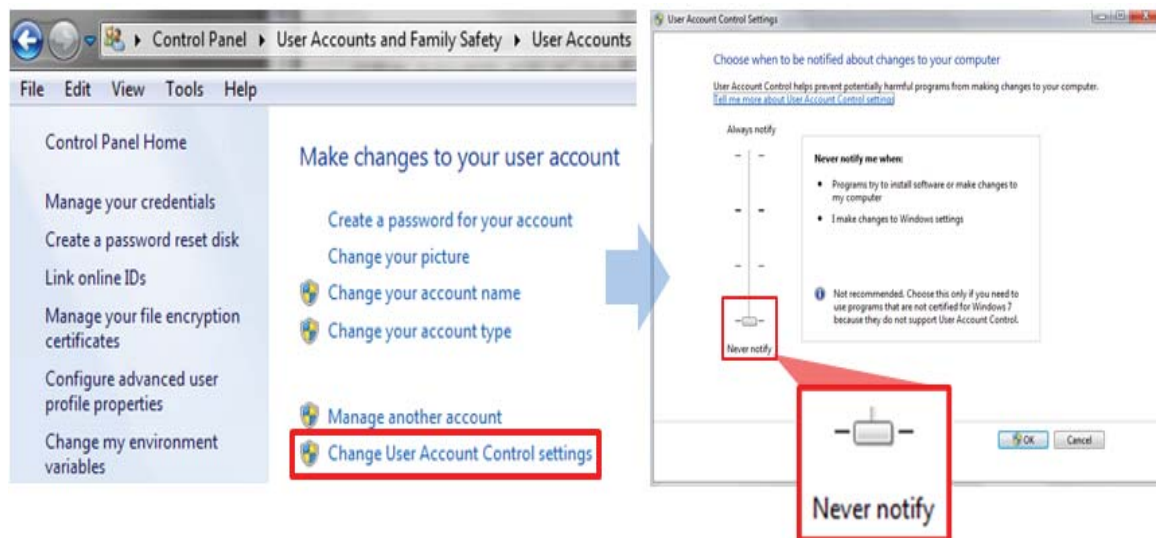
a) If Warning Message appears, allow the package.



b) Then Select Install Button from Pop Up Window.

✖ Windows 7 Users

Turn **UAC** Feature off if running under Windows 7 (32 & 64bit).

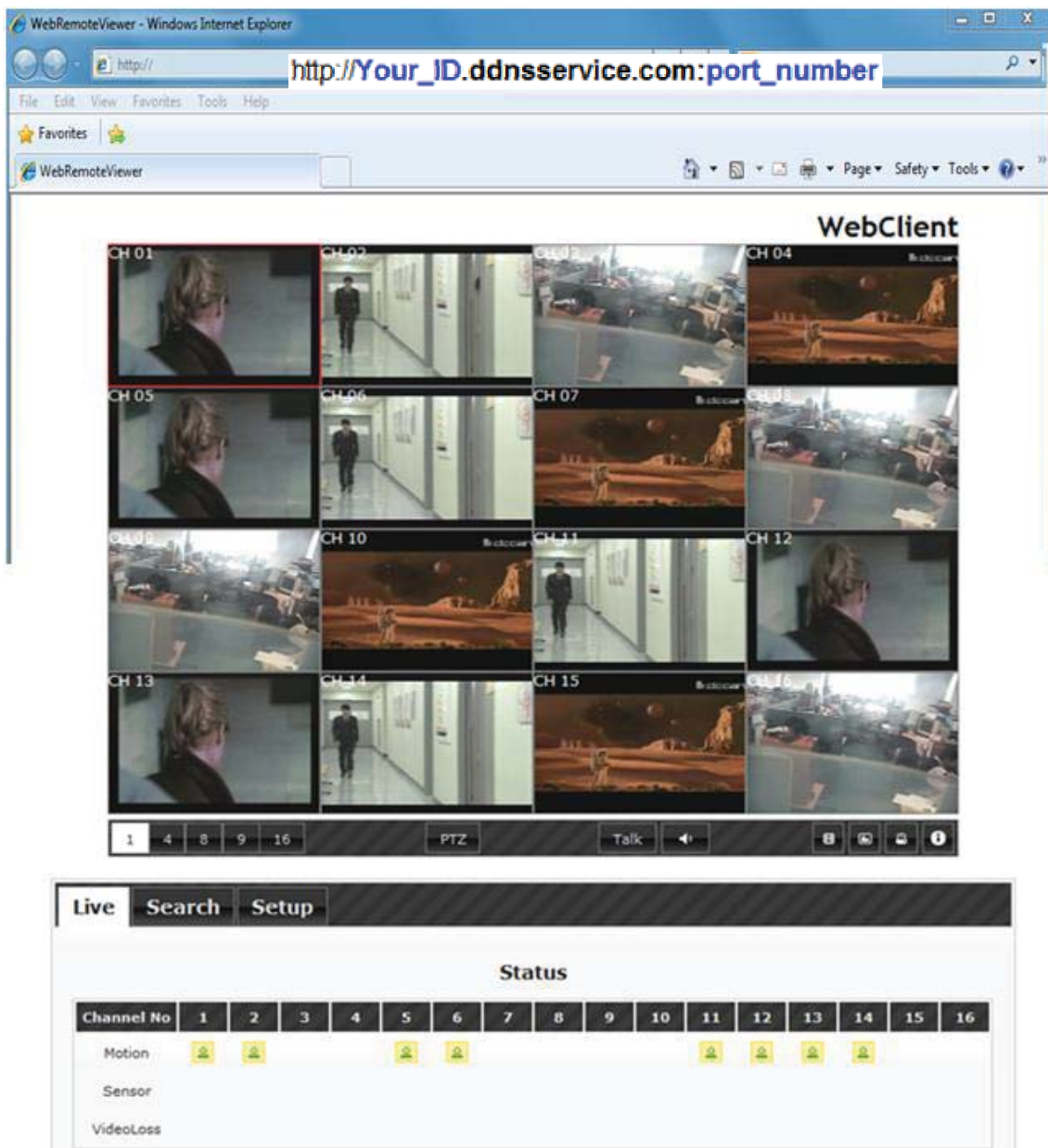


Using Web Client

This chapter will demonstrate sets of instruction how to use Web Client.

Live

By Default, Web Client is connected as Live Mode automatically.



- ✖ Please note that the last selected channel number will be displayed as the first channel number when user switch from one to the other split mode. Beware that camera number one may not always be displayed at channel 1 between each split display mode.

Split Display Mode

User can select sets different channel display mode (1, 4, 8, 9, 7 16) as shown below in the image.

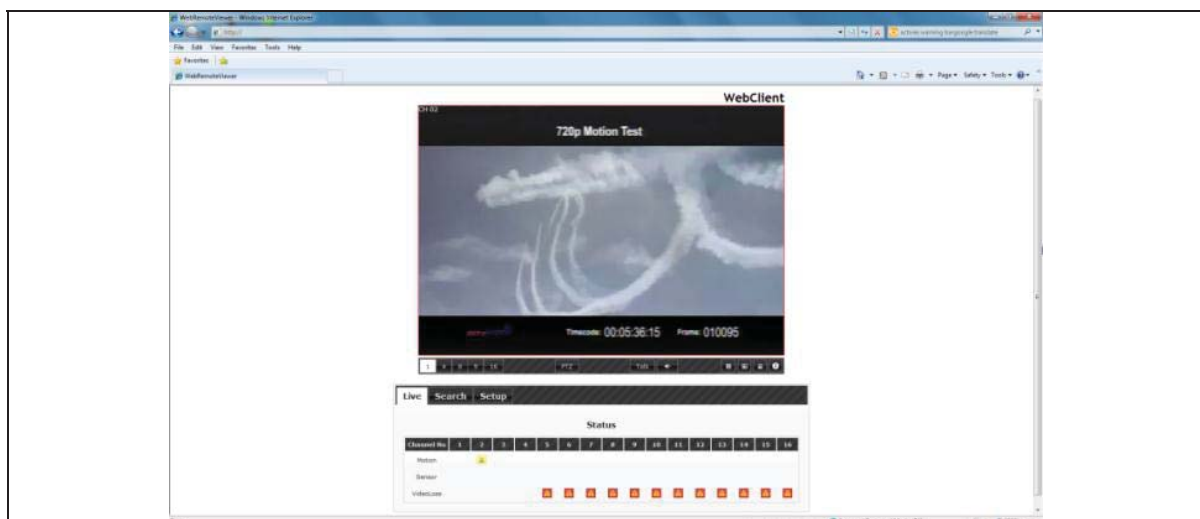


- ✘ Please note that the last selected channel number will be displayed as the first channel number when user switch from one to the other split mode. Beware that camera number one may not always be displayed at channel 1 between each split display mode.

Full Screen Browser Toggle Mode

There is no full screen button. However users simply can utilize web browser feature to customize the display up to 1000% Zoom on any sized monitor as long as the system video setting & web browser support a scalable zoom function.

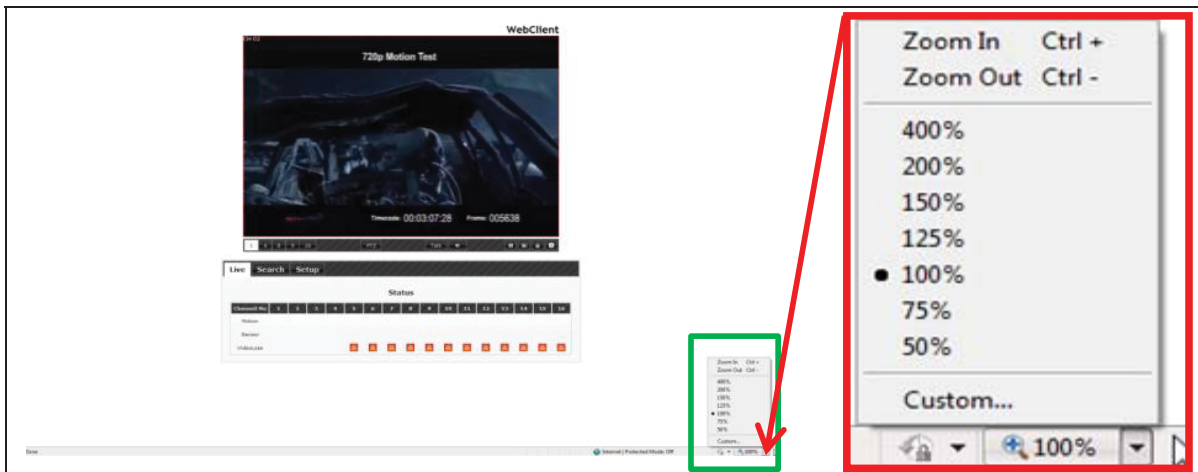
IE use F11 to switch its window into full screen mode.



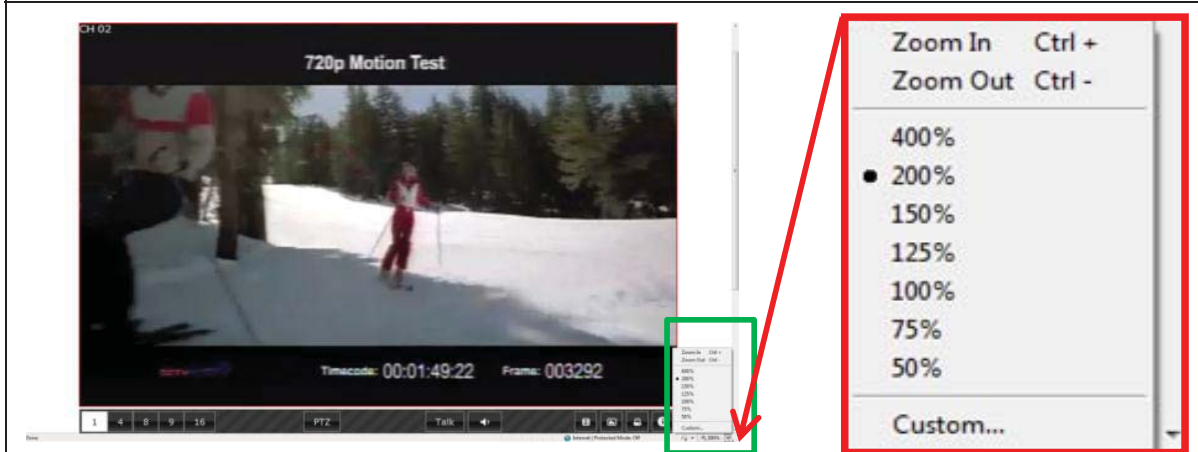
Standard Screen Mode:

Actual Screen Shot of 32" LCD Monitor.

No toggle.



IE at Full Screen Mode: “F11” Toggle
Actual Screen Shot of 32” LCD Monitor.
Default Zoom Level at 100%



IE at Full Screen Mode: “F11” Toggled.
Actual Screen Shot of 32” LCD Monitor.
Zoom Level at 200% to fit current resolution at maximum scale.

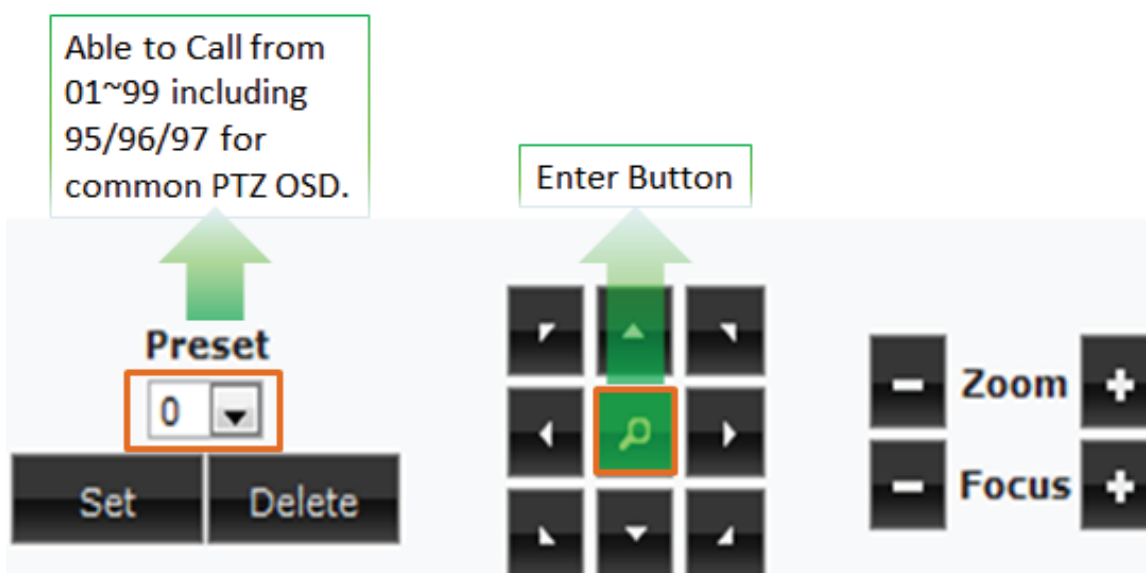
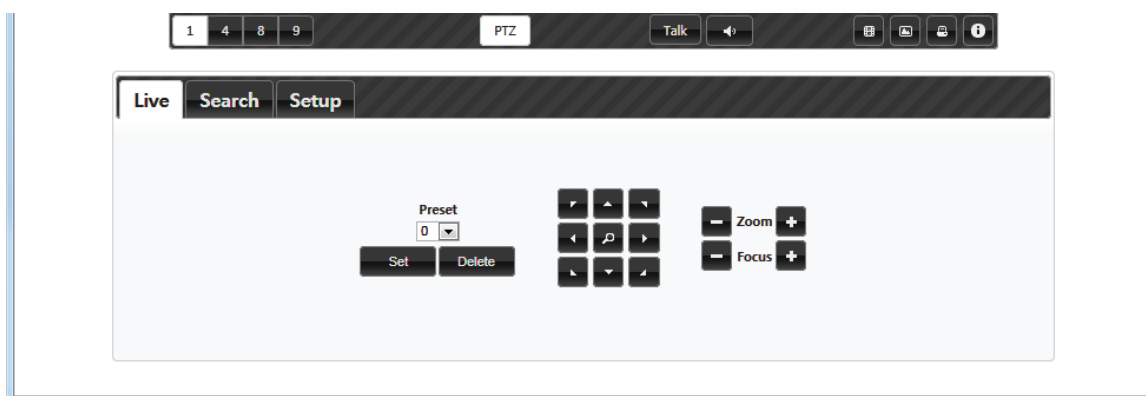
※ Note: Not all browsers support scalable zoom level.

PTZ Control

If clicking a left button among a middle button group of the bottom of divided screens, which is denoted by a red-marked rectangular area as follows, the bottom of the screen is changed to GUI screen for PTZ control. For PTZ control, select a desired channel first and then use GUI for PTZ control.



GUI for PTZ control is as follows.



Audio Control

A function related to bidirectional audio and a function of sound removal can be operated by using right buttons among a middle button group of the bottom of divided screens, which are denoted by a red-marked rectangular area as follows.

-  2 Way Audio Communication On/Off.
-  Audio Mute On/Off.



Remote Screenshot and Recording

User can record the video, take a snapshot, print the image, and check DVR Info.

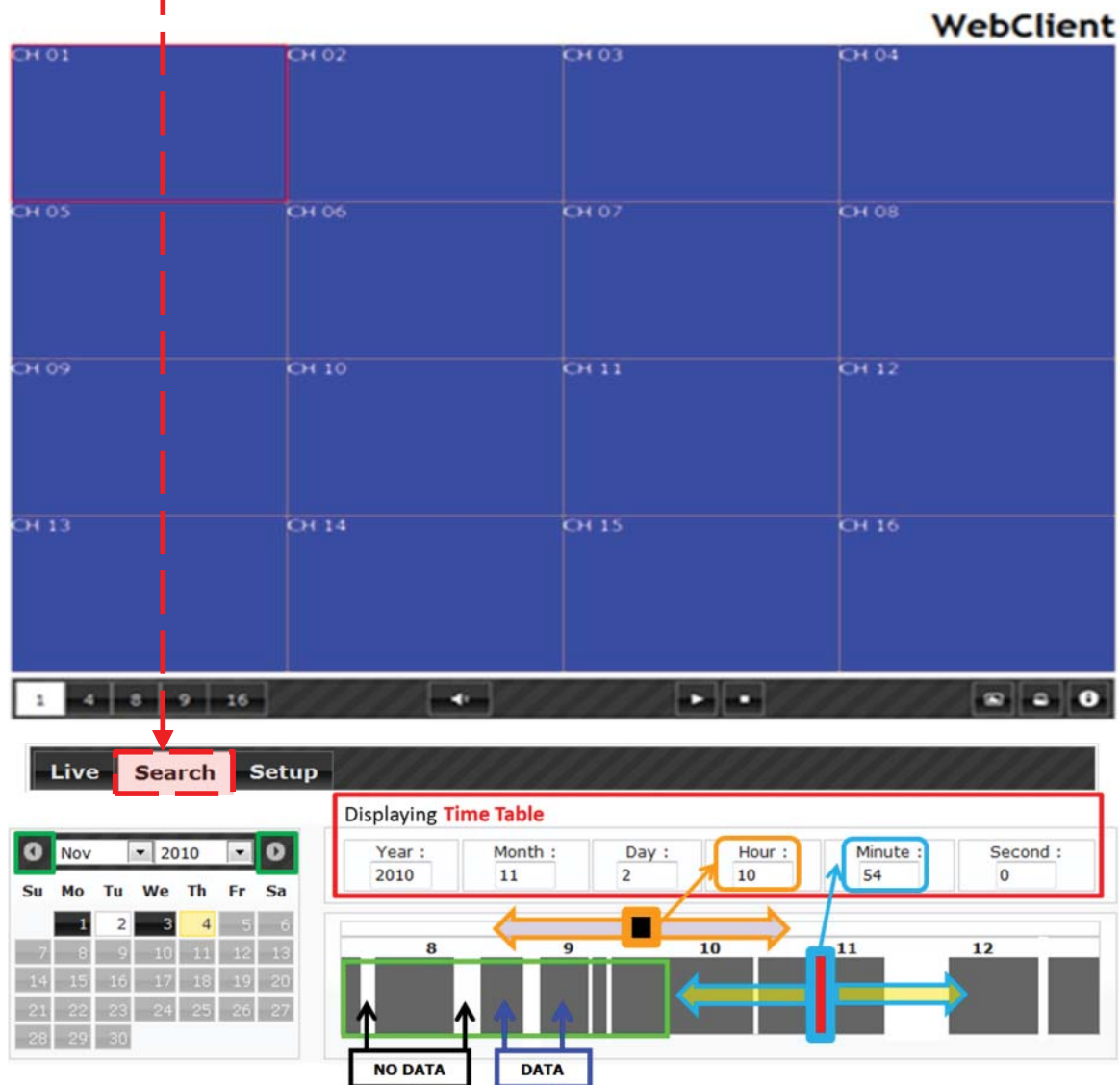


The recorded video will be stored in below directory.

"C:\WebRemoteViewer\"

Search

Select “SEARCH” from Main Menu Bar in order to switch to Search Mode.



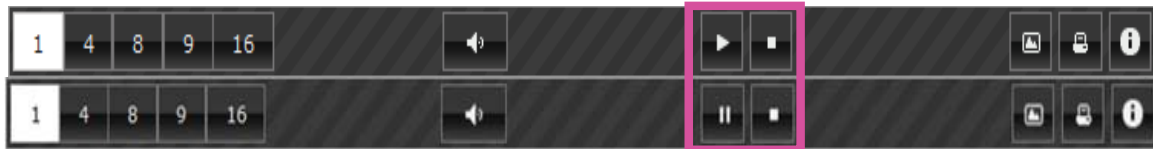
Calendar Search

- Select date using a Calendar on left panel. Use  arrow buttons to change month & year then a day.
- Drag “” hour block & “” minute block to desired time as it will display the corresponding hours & minutes on the **time table**.

✖ Note: On the time bar, Gray Scale Zone meaning there is a recorded data. 

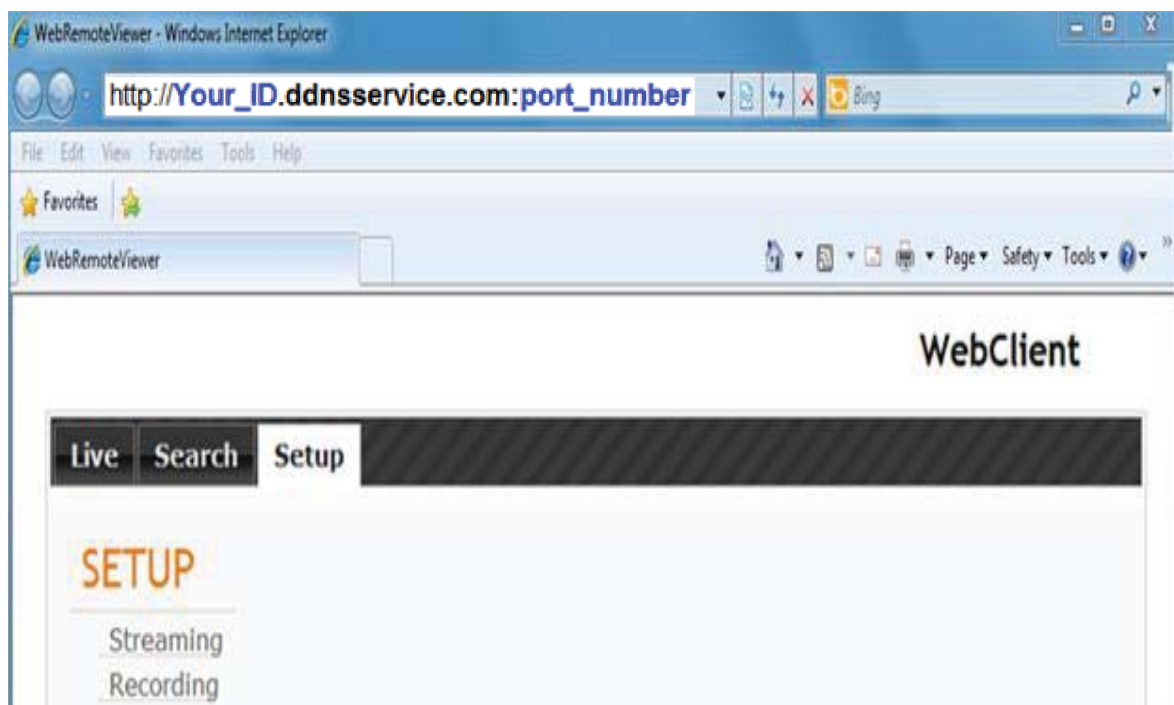
Playback

Once time & date has been chosen, press  to “PLAY”,  to “STOP”, &  to “PAUSE” the playback.



Setup

Select “SETUP” from Main Menu Bar to have access on the Setting of remotely connected HL Series DVR.



Streaming Setting

Setup of streaming being currently connected can be changed.

WebClient

Live
Search
Setup

SETUP

Streamin
Recording

STREAMING PORT 20408
WEB PORT 8080

TWO-WAY AUDIO ☒
AUTO BANDWIDTH ☒ 4Mbps

CHANNEL	ON	VBR	RESOLUTION	QUALITY	AUDIO	FPS
ALL	☐	☐	...	...	...	...
CH1	☒	☐	CIF	NORMAL	OFF	7
CH2	☒	☐	D1	ULTRA	ON	30
CH3	☒	☐	2CIF	SUPER	OFF	15
CH4	☒	☐	CIF	HIGH	ON	10
CH5	☒	☐	CIF	NORMAL	ON	7
CH6	☒	☐	CIF	LOW	ON	6
CH7	☒	☐	CIF	ULTRA	ON	5
CH8	☒	☐	CIF	ULTRA	OFF	3
CH9	☒	☐	CIF	ULTRA	OFF	2
CH10	☒	☐	CIF	ULTRA	OFF	1
CH11	☒	☐	CIF	ULTRA	OFF	0
CH12	☒	☐	CIF	ULTRA	OFF	7
CH13	☒	☐	CIF	ULTRA	OFF	7
CH14	☒	☐	CIF	ULTRA	OFF	7
CH15	☒	☐	CIF	ULTRA	OFF	7
CH16	☒	☐	CIF	ULTRA	OFF	7

LEFT FRAMES : 8

Apply
Cancel

Configurable Items

- CH → On/Off
- Resolution
- Audio → On/Off
- Frame Rate → 0~30

Recording Setting

User can configure recording setting of HL Series DVR.

WebClient

WebClient

SETUP

Live Search Setup

Streaming
Recording

OVERWRITE ☒ LIVE AUDIO ☒

CHANNEL	ON	VBR	RESOLUTION	QUALITY	AUDIO	FPS	PRE	POST	EVENT RECORD
ALL	☐	☐	...	...	...	...	...	...	MOTION ☐ SENSOR ☐ VIDEOLOSS ☐
CH1	☒	☐	CIF	ULTRA	ON	30	0	0	MOTION ☒ SENSOR ☐ VIDEOLOSS ☐
CH2	☒	☐	D1	ULTRA	ON	30	0	0	MOTION ☒ SENSOR ☐ VIDEOLOSS ☐
CH3	☒	☐	2CIF	ULTRA	ON	30	0	0	MOTION ☒ SENSOR ☐ VIDEOLOSS ☐
CH4	☒	☐	CIF	ULTRA	ON	30	0	0	MOTION ☒ SENSOR ☐ VIDEOLOSS ☐
CH5	☒	☐	CIF	ULTRA	ON	30	0	0	MOTION ☒ SENSOR ☐ VIDEOLOSS ☐
CH6	☒	☐	CIF	ULTRA	ON	30	0	0	MOTION ☒ SENSOR ☐ VIDEOLOSS ☐
CH7	☒	☐	CIF	ULTRA	ON	30	0	0	MOTION ☒ SENSOR ☐ VIDEOLOSS ☐
CH8	☒	☐	CIF	ULTRA	ON	30	0	0	MOTION ☒ SENSOR ☐ VIDEOLOSS ☐
CH9	☒	☐	CIF	ULTRA	ON	30	0	0	MOTION ☒ SENSOR ☐ VIDEOLOSS ☐
CH10	☒	☐	CIF	ULTRA	ON	30	0	0	MOTION ☒ SENSOR ☐ VIDEOLOSS ☐
CH11	☒	☐	CIF	ULTRA	ON	30	0	0	MOTION ☒ SENSOR ☐ VIDEOLOSS ☐
CH12	☒	☐	CIF	ULTRA	ON	30	0	0	MOTION ☒ SENSOR ☐ VIDEOLOSS ☐
CH13	☒	☐	CIF	ULTRA	ON	30	0	0	MOTION ☒ SENSOR ☐ VIDEOLOSS ☐
CH14	☒	☐	CIF	ULTRA	ON	30	0	0	MOTION ☒ SENSOR ☐ VIDEOLOSS ☐
CH15	☒	☐	CIF	ULTRA	ON	30	0	0	MOTION ☒ SENSOR ☐ VIDEOLOSS ☐
CH16	☒	☐	CIF	ULTRA	ON	30	0	0	MOTION ☒ SENSOR ☐ VIDEOLOSS ☐

LEFT FRAMES : 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

Apply Cancel

Configurable Items

- CH. Selection ON/OFF
- CH. VBS ON/OFF
- Recording Resolution
 - ULTRA
 - SUPER
 - HIGH
 - NORMAL
 - LOW
- Audio ➔ ON/OFF
- FPS ➔ 0~30
- PRE Recording
 - ➔ 0 Sec ~ 60 Sec
- POST Recording
 - ➔ 0 Sec ~ 60 Sec
- Event Recording
 - Motion ON/OFF
 - Sensor ON/OFF
 - Video Loss ON/OFF



7. Mobile DVR Viewer Manual

7. Mobile DVR Viewer Manual

Overview for Mobile DVR Viewer

Mobile DVR-Viewer™ is the state-of-the-art client software for iPhone, which is capable of monitoring up to 4 channels and controlling pan & tilt, by using iPhone.

To use Mobile DVR-Viewer™, installation of Mobile DVR-Viewer in iPhone is required.

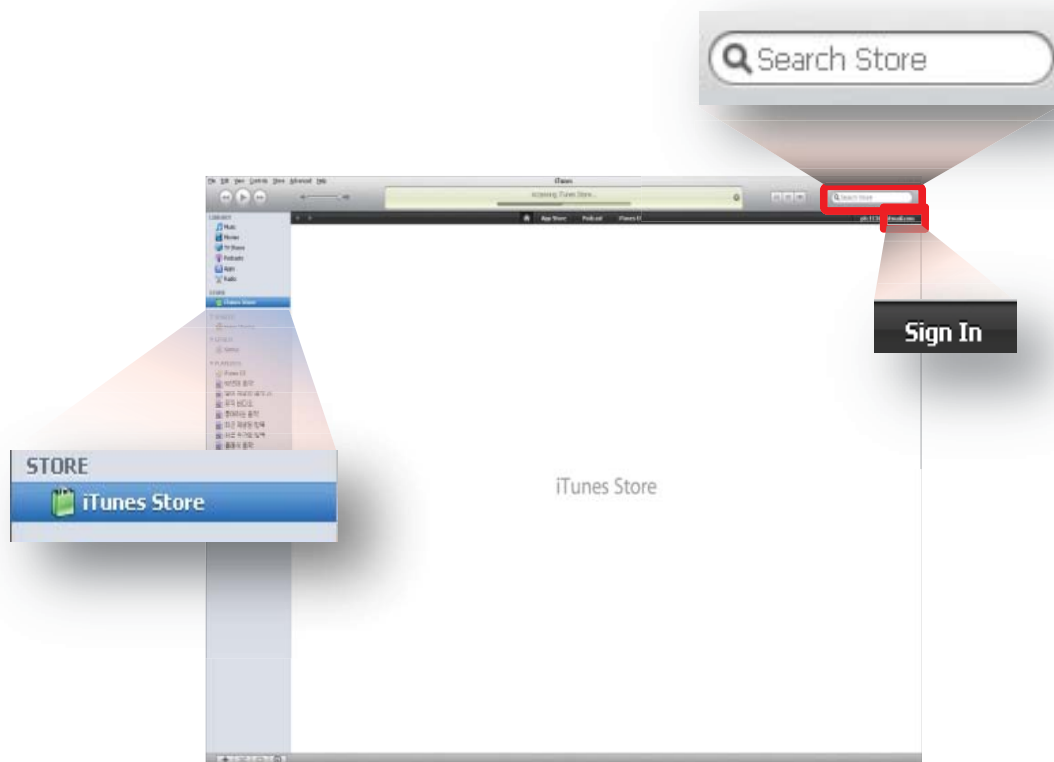
- OS
 - iOS4 recommended
- Display
 - Full Screen: 320x480
 - Resolution: 640x960
- Device
 - iPhone 3G/4

Installation by using iTunes

Install iTunes (from www.apple.com)



- ① Join and log in iTunes Store
- ② Through iTunes, search “iSync DVR Viewer”

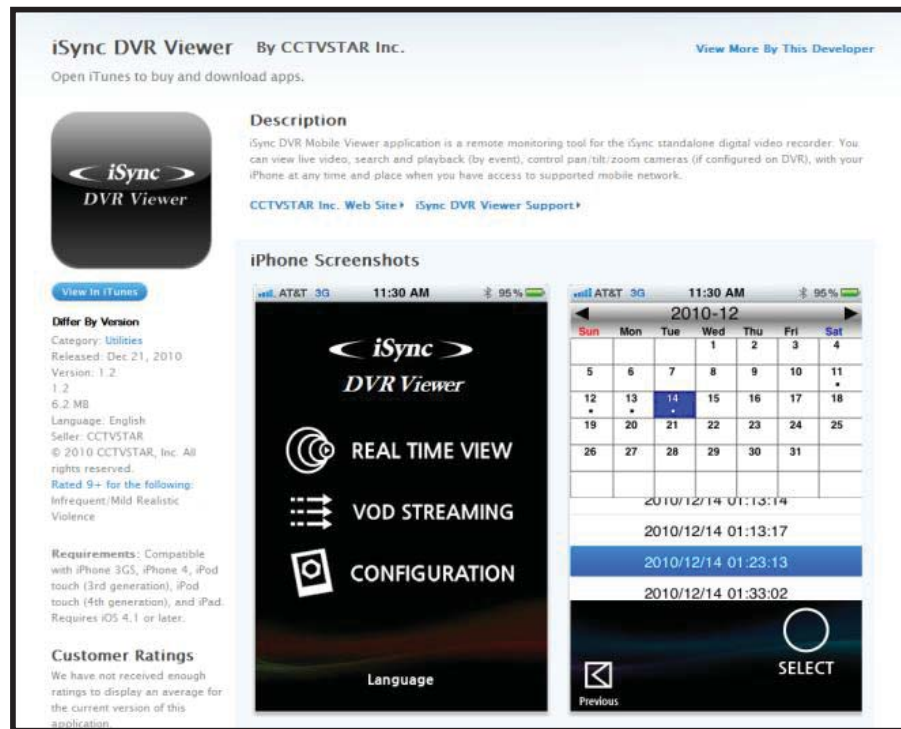


- ③ Click the relevant icon and confirm the information on the application program

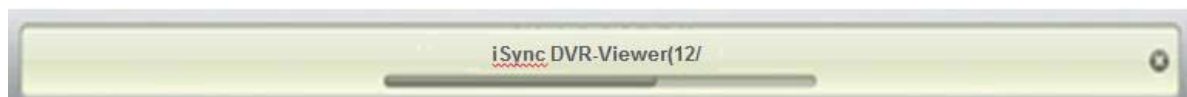


Standalone DVR Manual

- ④ Check the information and purchase the application program



- ⑤ Download the application program.



- ⑥ Confirm the downloaded application program and perform application program synchronization



Direct Installation from iPhone (Free Version Or Paid Version*)



- ① Execute App Store
- ② Select a search button and type “Mobile DVR viewer” in a search window
- ③ Select Mobile DVR-Viewer
- ④ Check the description and select a price button
- ⑤ Click an installation button to start installation
- ⑥ Completion of installation can be confirmed

Uninstallation

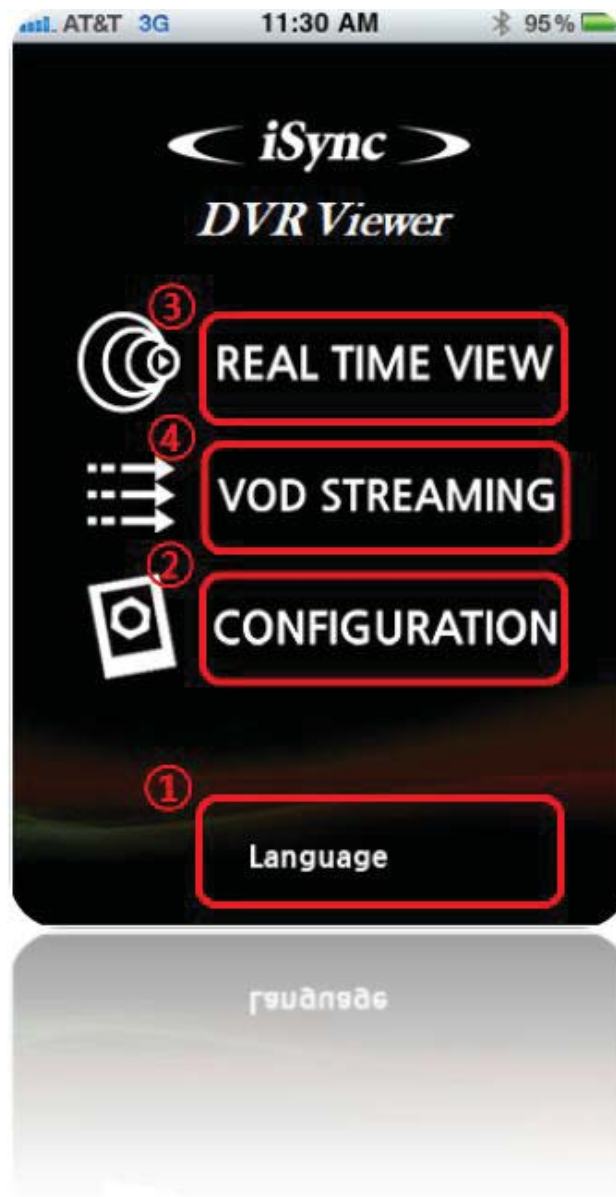
- ① Uncheck the checkbox if uninstallation is to be performed at iPhone



- ② For complete uninstallation, click a right button and select Uninstall

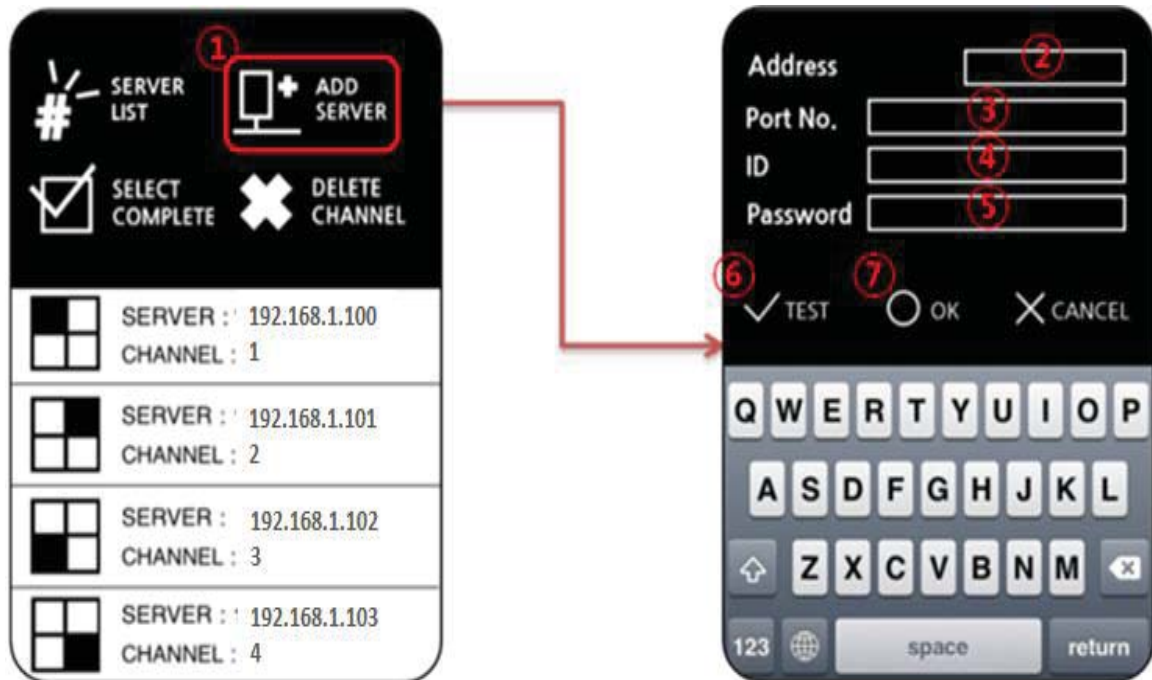


Main Screen



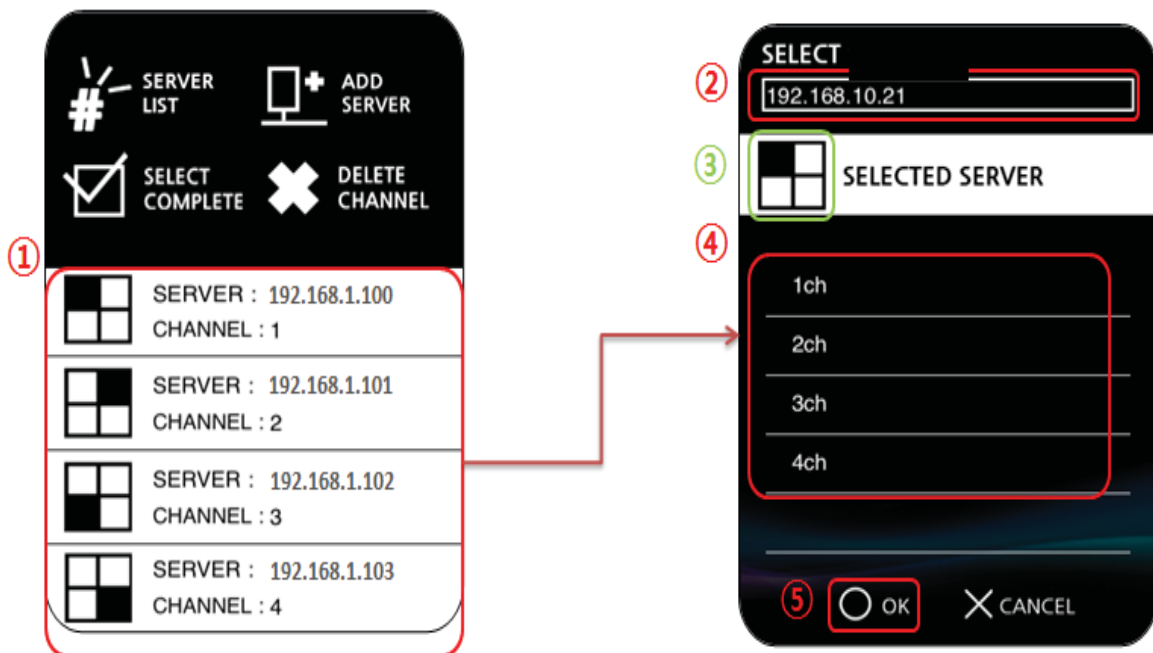
- ① Real-time surveillance videos can be viewed
- ② Recorded videos can be viewed
- ③ Addition and deletion of a server and a channel can be performed
- ④ Language can be chosen

ADD SERVER



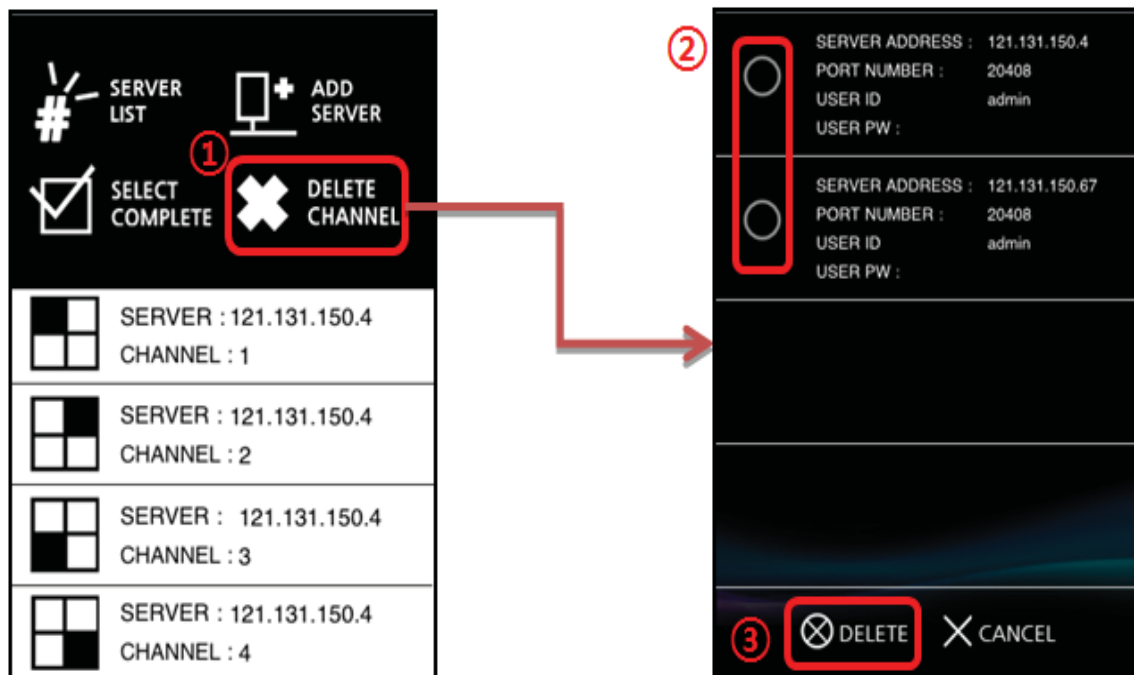
- ① Select ADD SERVER
- ② Enter IP address of a server
- ③ Enter a streaming port of the server to be added
- ④ Enter ID of the server to be added
- ⑤ Enter password of the ID of the server
- ⑥ Test the validity of the above entered data
- ⑦ Let the server be added in the list

SETUP CHANNELS



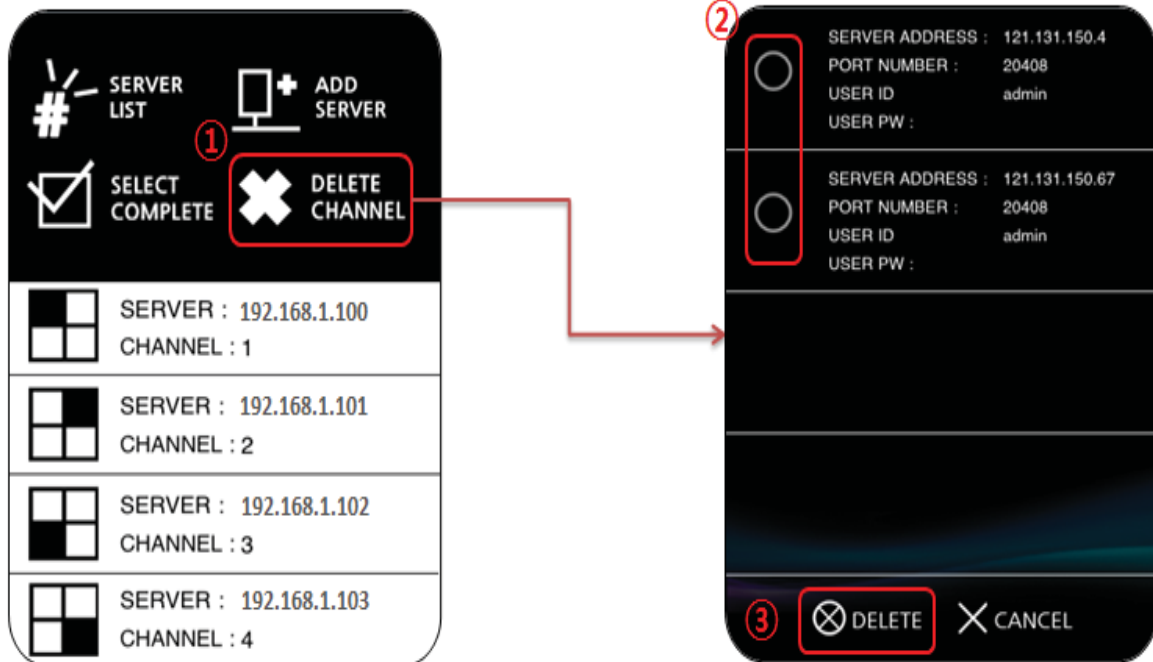
- ① Select a desired channel
- ② Activate a server selecting window by double clicking, and select a server
- ③ SELECTED SERVER displays the position of image to be assigned to a view channel
- ④ Select a channel number to be inserted in a channel.
- ⑤ Complete the channel setup

DELETE CHANNEL



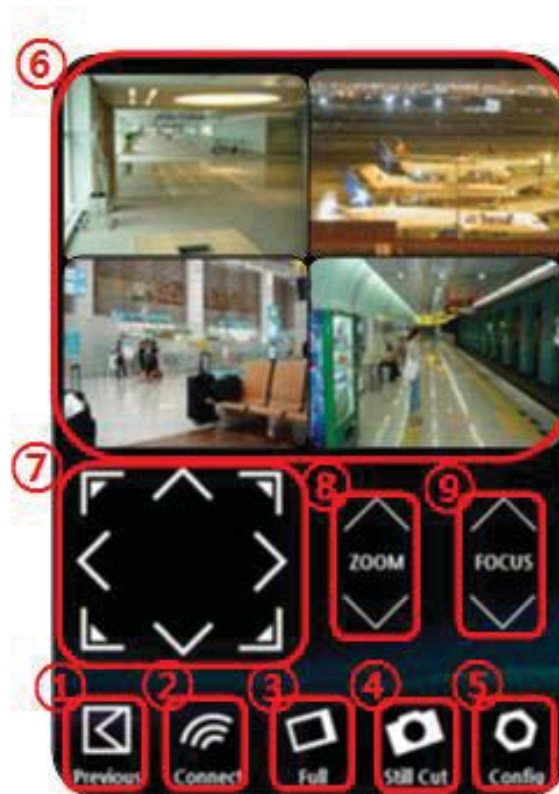
- ① Select DELETE CHANNEL
- ② Select a channel to be deleted
- ③ Press DELETE button to delete the selected channel

DELETE SERVER LIST



- ① Select SERVER LIST
- ② Select a server to be deleted
- ③ Press DELETE button to delete the selected server

Live Screen



- ① Return to main screen
- ② Connect to a server
- ③ Show full size image (available in 1-division mode)
- ④ View a screenshot of a live video (available in 1-division mode)
- ⑤ Move to configuration setting screen
- ⑥ Video display area
- ⑦ Buttons for manipulating camera directions (available if a pan-tilt function is supported)
- ⑧ Buttons for camera zooming (available if a pan-tilt function is supported)
- ⑨ Buttons for camera focusing (available if a pan-tilt function is supported)

Procedure of Playback of Recorded Video



- ① Select VOD STREAMING form a main screen.
- ② Select a channel to be replayed.
- ③ Choose the replay date and time.
- ④ Click SELECT button to move to a replay window.
- ⑤ Select PLAY button to replay the video.

Product Warranty



8. Product Warranty

This product has passed thorough quality management and inspection, and the supplier warrants properly according to this warranty.

[Warranty Notice]

The supplier executes product warranty as below. Place of purchase appointed at our headquarters or technical support team from our headquarters provides service when request of service.

Product Name		Model Name	
Serial Number		Place of Purchase	
Date of Purchase		Name of Customer	
Customer Address			

[Warranty by Free of Charge]

The supplier provides 1 year warranty as below condition from date of purchase for product part or technical defect occurred under normal use and condition.

However, if the date of purchase cannot be confirmed or when loss of this product warranty, warranty period will be decided by the product serial number which contains manufacturing date information managed during product manufacturing for 1 year as below condition?

- Warranty condition in case of breakdown caused by product's performance and functional defect under normal use

Customer Damage Type	Warranty conduct according to warranty period	
	Within warranty period	After warranty period
Critical defect within 10 days from date of purchase	Product exchange by free of charge	No relevant fact
Breakdown caused by same defect up to 3 times	Product repair by free of charge	Charged product repair
Breakdown caused by same defect up to 4 times	Product repair by free of charge	Charged product repair
When manufacturer have lost the product requested for repair by customer	Product repair by free of charge	Refund after depreciation for required amount
When repair is impossible even though there is product part available for repair	Product repair by free of charge	Refund after depreciation for required amount

- Breakdown caused by customer's intention and fault within warranty period

Breakdown Type	Warranty conduct according to warranty period	
	Within warranty period	After warranty period

Product Warranty

When repair is impossible	Customer charge	Customer charge
Breakdown caused by same defect up to 3 times	Charged product 0repair	Charged product repair

[Charged Product Warranty]

- The following cases are handled by charged service even within the warranty period by free of charge.
- Product breakdown occurring after warranty period
- Breakdown due to customer's careless usage or voluntarily repairing, rebuilding the product
- Breakdown due to natural disasters(Fire, Injury from Salt/Flood damage)
- Belongings provided when purchase of product
- Breakdown from not obeying the specified method of use and notice.
- Breakdown from not using the specified electricity volume(Voltage, Frequency)
- Breakdown caused by other service personnel than the supplier agent or technical service team personnel
- Product breakdown or defect from having the product to drop after installation.
- When request of installation for move of product
- Re-installation after installing once by customer's request on purchase
- Re-installation due to customer's inexperienced installation
- Requesting service due to reasons rather than product breakdown

[Policy for product repair]

Customer must connect to the supplier and receive a RMA (Returned Merchandize Authorization) number by using the product serial number when need of product repair. (When computerization is not available: Customer must receive the RMA number from the supplier's Sales Team when need of product repair. Given RMA number is valid for 30 days from date of receipt and automatically cancelled afterward.

In case of returning for product repair, RMA number must be presented. When RMA number is not available, service will be refused and the received product will be returned without conduct of repair. Customer must use our company's packing box provided on purchase for product protection purpose, and must safely pack otherwise to prevent any external impact or condition when loss of packing box. Customer must bear the freight charge when dispatch and the product must arrive within 30 days from the date of receipt of RMA number to have the warranty right of product recognized.

If the product arrives at our Technical Service Center after 30 days from the date of receipt of RMA number, the product will be returned as it is and the freight charge will also be charged to customer.

If the product's packing condition is not appropriate for product repair, the product will be returned as it is and the freight charge will also be charged to customer. RMA number and this product warranty must be enclosed within the product when dispatching product for repair, and both document must be available to be recognized for product warranty right. If there are any insufficient parts in the two documents, the product will be returned as it is and the freight charge will also be charged to customer.

The supplier shall provide perfect repair and quickly dispatch as soon as possible when the customer satisfies normal quality warranty condition. The supplier will bear the freight charge when returning. However the repair cost is charged by the standards shown at table 2 and table 3.

For more detailed information, please contact the supplier.

Thank You